



Attorney Docket No. 1017-5616 (51017/5616)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICEIn re application of:
Weinstock et al.

Serial No.: 09/641,820

Examiner: Fisher, Michael J.

Filed: August 18, 2000

Group Art Unit 3629

For: Web Enabled Business To Business
Operating System For Rental Car ServicesDECLARATION OF WILLIAM G. TINGLE

Comes now William G. Tingle, and being duly informed of the penalties for perjury, does hereby provide the following declaration in support of the subject patent application.

1. I, William G. Tingle, am presently employed by Crawford Group, Inc., the assignee of the subject patent application and the corporate parent of Enterprise Rent-A-Car Company ("ERAC") which uses the invention described in the subject application to conduct its car rental business. During 1999, I had the title of Assistant Vice President and then Vice President of the Company, and part of my responsibilities included company wide responsibility for software and product development. The development of the inventive automated rental management system described by Figures 1 and 2 of the subject patent application (hereinafter the "ARMS/Web 1.0 system") was during this time frame performed under my ultimate supervision.

2. In gathering prior art to submit to the Patent Office, several documents have been brought to my attention which are being submitted and at least one that contains a date which is inconsistent with dates on other documents, but which I can explain. I also wish to provide some information on several systems that were implemented at about one year prior to the filing date of the subject application, or before then, and which the Patent Office may consider relevant.

3. Prior to the development and implementation of the ARMS system that is described in the subject patent application, ERAC was using a system that was DOS based and which offered some

communication capability between it and the body shops where insurance company customers had brought their insured vehicles for repair and had obtained an ERAC rental car to drive while the repair was being completed. The first such ancillary system was implemented in Sep./Oct. of 1997 and was known as the Electronic Callback System, or ECBS. This software application was provided on a diskette to body shops who would load it onto their computer systems. Each day, ERAC would load each body shop's callbacks into a separate AGNS mailbox. The body shops would use a dial-up connection to connect to access their AGNS mailbox that contained all their callback information. This information would be updated by body shop personnel and "push" their updates back to the AGNS mailbox. Later, perhaps overnight, ERAC would pick up the updates and process them through the "fulfillment" system in use at that time, known as ECARS. A collection of "screen shots" demonstrating ECBS is attached hereto as Exhibit A (reference AH in the concurrently submitted IDS).

4. The ECBS system was not internet based, was not Windows based or GUI implemented, and was not communicating either bi-directionally or in real time. ECBS could best be described as a batch type polling system to gather updated information on the status of vehicles being repaired. ECBS could not be used to create, adjust any terms of, or "manage" the reservation and instead other activities had to take place by other systems and personnel for reservation creation or management to take place. ERAC was not satisfied with ECBS, including especially its inability to handle the large amount of data required due to the size of ERAC's business, and not long after its implementation began development of improvements to ECBS.

5. The system developed to improve ECBS was the Vehicle Management System ("VMS") and it was implemented in Feb. of 1999. The design parameters for VMS are described in Exhibit B attached, (reference FY in the concurrently submitted IDS), which is the Project Charter entitled "ARMS - Vehicle Messaging System" written at the start of the design process but not necessarily the finished product as implemented so there may be inconsistencies between it and my description which follows. Also attached hereto as Exhibit C, (reference GD in the concurrently submitted IDS), is a later written overview of "ARMS Automotive" which includes a brief summary of the previous VMS system, as built. VMS used essentially the same back-end processing functionality as ECBS but provided a web browser-based front-end. As such, while the requests for information were presented to the body shop personnel in a more user friendly format, VMS did not offer any significant improved functionality with respect to "managing" the vehicle reservation. Again, as with ECBS, it operated as a batch processing of updated body shop information. VMS could not be used to create, adjust any terms of, or "manage" the reservation and instead other activities had to take place by other systems and personnel for reservation

creation or management to take place. VMS was also abandoned due to its continued shortcomings based on the ECBS design.

6. Both the ECBS and the VMS systems were considered as ancillary data collection systems, implemented to partially automate the gathering of information for the predecessor "green screen" reservation system described at length in other documents being provided to the Patent Office.

7. Attached hereto as Exhibit D (reference GE in the concurrently submitted IDS) is a document entitled "ARMS-Vehicle Messaging System, Phase II, Project Charter" dated August 20, 1999 which as mentioned above with respect to Exhibit B is a document that was at that time customarily created at the start of a new project and which sets forth the parameters for the software being designed. This project was started to re-design the then existing VMS system as described above, and which later became known as "ARMS Automotive" although there has been a blurring by many of this term to also refer to the predecessor systems as well. This document demonstrates to me that this ARMS Automotive system including Exhibit D is recent enough that it would not be considered important to the Patent Office in connection with the subject patent application.

8. Another document being submitted, reference GF in the concurrently submitted IDS and attached hereto as Exhibit E, is an excerpt of the summer 1999 internal ERAC publication entitled "Free Enterprise" that includes the following quote:

BODY SHOP COMMUNICATIONS SYSTEM ON THE INTERNET - Enterprise is in the final stages of developing an Internet communications system that gives body shops a simple, electronic method for updating Enterprise Rental branches about the status of cars in their shop. Through a link with ARMS, it will also keep insurance companies up to date. Any body shop that is on the internet and has the password can access it. The communications system will assist body shops by dramatically reducing phone calls. It will also allow them to do updates when it's convenient for them and give them a way to separate themselves from their competition in the eyes of insurance companies. Easy-to-follow screens enable shops to input information in a clear, consistent form - which will help speed up and simplify claims when they are sent to an insurance provider via ARMS. Currently, 40 repair shops are involved in the test phase of the system in four Enterprise groups. A nationwide rollout is set for this fall."

The information contained in this quotation is correct except that the timing of the introduction for what became known as ARMS Automotive did not turn out as stated. The information for this article probably was provided by me, or through me, to our public relations group for inclusion in this article. However,

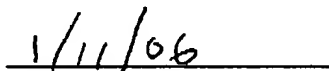
the project dates are more reliably provided in Exhibit D noted above, making this planned test phase happening after August 20, 1999. I believe this to be true for a number of reasons including the fact that the system had not by then been developed, that information for this article must have been provided beforehand and was necessarily predictive in nature, and while general accuracy was sought to be achieved there was no exerted significant effort to be exactly correct as Free Enterprise is an internal publication and the nature of the document is to communicate the future availability of systems with an optimistic schedule.

9. Another document being submitted is entitled "CIO Magazine 2002 Enterprise Value Awards Application"; reference GA in the concurrently submitted IDS, attached hereto as Exhibit F, and it includes a statement that "ARMS/Automotive was developed and deployed in April 1999." This date is inconsistent with the Project Charter of Exhibit D, which confirms to me that ERAC didn't even begin the development of ARMS/Automotive until August 20, 1999. This reference must be an example of the blurring I mention above as employees have used the term ARMS/Automotive to refer not to just the later developed program but also its predecessors which are more correctly identified at ECBS and VMS. In fact, the April 1999 "deployment" date is about the time that the VMS system was "deployed".

Having been duly warned that willful false statements and the like are punishable by fine or imprisonment, or both under 18 USC 1001, and may jeopardize the validity and/or enforceability of the subject application or any patent issuing thereon, the declarant submits the foregoing declaration.



William G. Fingle



Date

ARMS/CB

Enterprise Rent-A-Car
Automated Rental Management System
Electronic Callback System

R etrieve Status Requests from Enterprise

U pdate Vehicle Status Requests
- 4 Updates needed

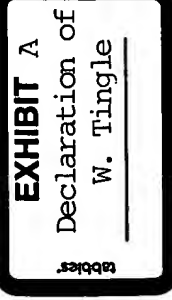
S end Status Updates to Enterprise
- 0 Ready to send

Q uit Program

Please enter your selection <R,U,S,Q>

For Technical Support Call (800) 727-2222
Advantis Account: ARM2

Last Retrieval: 02/18/1998 12:49PM
Last Send: 02/18/1998 10:41AM



Welcome to Electronic Repair Shop CallMania!

What this demonstration will show you is how easy it will be for a Repair Shop to give an update on the status of a vehicle in their shop.

Enterprise will electronically request vehicle status updates.

The labor-intensive practice of Repair Shops and rental branches communicating by telephone will be reduced to a bare-minimum.

The information the Repair Shop enters on the screen can be sent directly to Enterprise, which will then be forwarded to the Insurance Company?

What does a Repair Shop need to get started on this program?

- 1) IBM or compatible PC
- 2) Modem attached to this PC
- 3) Telephone line

Navigating through this demonstration:

- Press <Enter> to move forward.
- Press <Backspace> to move backward.
- Press <Esc> to exit.

Software Installation at the Repair Shop:

A diskette will be sent to the Repair Shop with the necessary software. Loading instructions will be included.

The Repair Shop accesses the program based on the instructions.

Software Usage by the Repair Shop:

A main menu will be displayed with 3 options.

Option 1: The Repair Shop will "dial-out" to Enterprise and retrieve a list of vehicles that Enterprise needs a status on.

Option 2: The Repair Shop then enters status updates on their screen.

Option 3: The Repair Shop will "dial-out" to Enterprise and send the list of updates to Enterprise.

As shown below, during 1991:

Here is what will happen daily:

- 1> Every night, Enterprise will send a list of vehicles needing a status update to the Repair Shop's "mailbox".
- 2> Every morning, the Repair Shop will retrieve this list of vehicles.
- 3> The Repair Shop will then update the status for each vehicle.
- 4> The Repair Shop then sends these updates to Enterprise.

Reparatus:

- 1> Enterprise won't have to call the Repair Shops for vehicle updates.
- 2> Repair Shop's won't have to get calls from multiple Enterprise branches throughout the day requesting vehicle updates.
- 3> Repair Shop's can give their updates at a time convenient to them.
- 4> Since the Repair Shop's are entering their own updates, this information can be passed directly to the adjusters without any interpretation issues.

This is the main menu.

Automated Rental Management System
Vehicle Status Update

1. Retrieve Status Requests From Enterprise

2. Enter Vehicle Status Updates
 - 0 updates needed

3. Send Status Updates to Enterprise
 - 0 ready to send

99. Exit

Selection: __

Last retrieve: 6/26/97 08:14
Last send: 6/26/97 09:23

2

- It will display how many updates are needed and how many are ready to send.

It will display the last date/time the status updates had been retrieved and sent.

Automated Rental Management System
Vehicle Status Update

1. Retrieve Status Requests From Enterprise

2. Enter Vehicle Status Updates
- 0 updates needed

3. Send Status Updates to Enterprise
- 0 ready to send

99. Exit

Selection: 1

Last retrieve: 6/26/97 08:14
Last send: 6/26/97 09:23

First thing in the morning, the Repair Shop can retrieve a list of vehicles in need of a status update by selecting option 1.

Automated Rental Management System
Vehicle Status Update

1. Retrieve Status Requests From Enterprise

Retrieving Status Requests from Enterprise, please wait...

YES NO

Selection: 1

Last retrieve: 6/26/97 08:14
Last send: 6/26/97 09:23

A window will appear while the system retrieves
the requests from the "mailbox".

Automated Rental Management System
Vehicle Status Update

1. Retrieve Status Requests from Enterp
- 4 requests received
2. Enter Vehicle Status Updates
- 4 updates needed
3. Send Status Updates to Enterp
- 0 ready to send

98. Exit

Selection: _

Last retrieve: 6/27/97 08:22
Last send: 6/26/97 09:23

When the retrieval
is complete, it
will display how
many requests it
has retrieved. It
will also update
the last retrieval
date and time.

Automated Rental Management System Vehicle Status Update

1. Retrieve Status Requests from Enterprise
- 4 requests received
2. Enter Vehicle Status Updates
- 4 updates needed
3. Send Status Updates to Enterprise
- 0 ready to send

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Selection: 2
Last retrieve: 6/27/97 08:22
Last send: 6/26/97 09:23

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The Repair Shop can then select option 2 to enter the updates to these requests.

Automated Rental Management System Vehicle Status Update

ROB:
Vehicle:
Ins Co:
Status:

94 Pontiac Grand Am
State Farm

EMRCH: 314-863-0668
Name: Stephanie Harris
Claim: 243-5514-8244

Adj: Walsh

Comp Date: / /

ROB:
Vehicle:
Ins Co:
Status:

026548
96 Toyota Camry
Allstate

EMRCH: 314-296-2251
Name: Tim Johnson
Claim: 229456-21

Adj: Richter

Comp Date: / /

ROB:
Vehicle:
Ins Co:
Status:

026584
92 Chevrolet C1500
Liberty Mutual

EMRCH: 314-863-8853
Name: Terry Williams
Claim: 052-95125225

Adj: Mahan

Comp Date: / /

NOTE:

F3=Exit

F5=Status Codes

PAGE UP/DOWN

Automated Rental Management System Vehicle Status Update

ROM:
Vehicle:
Ins Co:
Status:

94 Pontiac Grand Am
State Farm

ERACH: 114-863-8668
Name: Stephanie Harris
Claim: 243-5514-0241

Adj: Walsh

Comp Date: / /

ROM:
Vehicle:
Ins Co:
Status:

026548
96 Toyota Camry
Allstate

ERACH: 314-296-2251
Name: Tim Johnson
Claim: 229-450-71

Comp Date: / /

ROM:
Vehicle:
Ins Co:
Status:

026584
92 Chevrolet C1500
Liberty Mutual

ERACH: 31
Name: Te
Claim: 05

Comp Date: / /

This screen will display three requests per page. Use the FOLL keys to display more.

F3=Exit

F5=Status Codes

PAGE UP/DOWN

more...

Automated Rental Management System Vehicle Status Update

ROK:
Vehicle:
Ins Co:
Status:

94 Pontiac Grand Am
State Farm

Name:
Claim:

14-463-8450
tephanie Harris
43-5514-0241

Adj: Walsh

Comp Date: / /

ROK:
Vehicle:
Ins Co:
Status:

026548
96 Toyota Camry
Allstate

Name:
Claim:

14-296-2251
in Johnson
29456-21

Adj: Richter

Comp Date: / /

ROK:
Vehicle:
Ins Co:
Status:

026584
92 Chevrolet C1500
Liberty Mutual

Name:
Claim:

One piece of information that is important to the Repair Shop is their repair order number. The first time a status update is requested, it will be blank. They can enter this number in and it will be displayed on all subsequent requests.

F3=Exit

F5=Status Codes

PAGE UP/DOWN

Automated Rental Management System Vehicle Status Update

ROR:
Vehicle:
Ins Co:
Status:

94 Pontiac Grand Am
State Farm

ERRCD: 314-863-8668
Name: Stephanie Harris
Claim: 243-5514-0241

Adj: Walsh

Comp Date: / /

ROR:
Vehicle:
Ins Co:
Status:

026548
96 Toyota Camry
Allstate

ERRCD: 314-296-1251
Name: Tim Johnson
Claim: 229-566-21

Adj: Richter

Comp Date: / /

ROR:
Vehicle:
Ins Co:
Status:

026584
92 Chevrolet C1500
Liberty Mutual

ERRCD:
Name:
Claim:

To help the Repair Shop identify the request, the type of vehicle being repaired, the insurance company name, the Enterprise branch phone number, the name of the renter, the insurance claim number, and the adjuster's name will be displayed.

F3=Exit

F5=Status Codes

PAGE UP/DOWN

Automated Rental Management System Vehicle Status Update

ROB:
Vehicle:
Ins Co:
Status:

94 Pontiac Grand Am
State Farm
ERROR: 314-863-9668
Name: Stephanie Harris
Claim: 243-5514-0241
Adj: Walsh

Comp Date: / /

ROB:
Vehicle:
Ins Co:
Status:

26548
6 Toyota Camry

To provide the status of the vehicle, first enter a status code from the list, then type the detailed description next to it. There are two lines for the detail. To see the status codes available, press F5=Status Codes. A window will be displayed.

ROB:
Vehicle:
Ins Co:
Status:

026584
92 Chevrolet C1500
Liberty Mutual

Terry Williams
052-95123235
Name
Claim

Adj: Baker

Comp Date: / /

more...

F3=Exit

F5=Status Codes

PAGE UP/DOWN

Automated Rental Management System Vehicle Status Update

ROR:
Vehicle:
Ins Co:
Status:

94 Pontiac Grand Am
State Farm

EMUCR: 314-863-8658
Name: Stephanie Harris
Claim: 243-5514-0244

Adj: Welch

A

Comp Date: / /

ROR:
Vehicle:
Ins Co:
Status:

026548
96 Toyota
Allstate

amry

EMUCR: 31
Name: Ti

The two digit number can
either be entered or
selected from the list.

ROR:
Vehicle:
Ins Co:
Status:

0 9
Liberty Mutual

31
Te
Class: 05

- 01--Work in Progress
- 02--Waiting on Parts
- 03--In Paint Shop
- 04--Paint Delay-Weather
- 05--Supplemental Damage Found
- 06--Waiting for Ins Payment
- 07--Waiting on Mail to Repair
- 08--Vehicle Completed Today
- 09--Customer Picked-up Vehicle
- 10--Vehicle not at Repair Shop
- 99--Other

x - - - - -

F3=Exit

F5=Status Codes

PAGE UP/DOWN

Automated Rental Management System Vehicle Status Update

ROB: 0265129
Vehicle: 94 Pontiac Grand Am
Ins Co: State Farm
Status: 02 BY EMP QTR 2001L ON SCHEDULE

EMSG: 314-063-0660
Name: Stephanie Harris
Claim: 243-5514-0241

Adj: Walsh

Comp Date: 07/24/97

ROB: 026548
Vehicle: 96 Toyota Camry
Ins Co: Allstate
Status:

EMSG: 314-296-2251
Name: Tim Johnson
Claim: 229-450-21

Adj: Fitcher

ROB: 026584
Vehicle: 92 Chevrolet C1500
Ins Co: Liberty Mutual
Status:

The most important piece of information needed is the detailed description as entered next to the status code as well as the estimated completion date. An example is filled in above.

F3=Exit

F5=Status Codes

PAGE UP/DOWN

more...

17

Automated Rental Management System
Vehicle Status Update

1. Retrieve Status Requests from Enterprise
2. Enter Vehicle Status Updates
 - 1 updates needed
3. Send Status Updates to Enterprise
 - 3 ready to send

99. Exit

Selection: —

After entering the status updates, the numbers will be adjusted to show how many are left to update as well as how many are ready to be sent to Enterprise.

Automated Rental Management System
Vehicle Status Update

1. Retrieve Status Requests from Enterprise

2. Enter Vehicle Status Updates
- 1 updates needed

3. Send Status Updates to Enterprise
- 3 ready to send

90. Exit

Selection: 3 Last retrieve: 6/27/97 08:22
Last send: 6/26/97 09:23

When they are ready to send the updates
to Enterprise, they select option 3.

Automated Rental Management System
Vehicle Status Update

Sending Status Requests to Enterprise, please wait...

3. Send Status
- 3 ready

4. Enter to Enterprise
send

99. Exit

Selection: _3

Last retrieve: 6/27/97 08:22
Last send: 6/26/97 09:23

A window will appear while the system sends all the status updates to Enterprise.

Automated Rental Management System
Vehicle Status Update

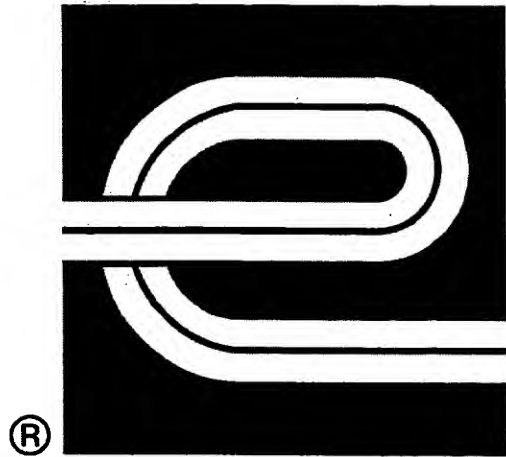
1. Retrieve Status Requests from Enterprise
2. Enter Vehicle Status Update:
- 1 updates needed
3. Send Status Updates to Enterprise
- 0 ready to send

99. Exit

Once the send is complete,
the number will be reset and
the date/time updated.

Last retrieve: 6/27/97 08:22
Last send: 6/27/97 09:45

Selection: ____



Enterprise Rent-A-Car

ARMS - Vehicle Messaging System

Project Charter

October 15, 1998



Overview

Enterprise rental branches currently manage replacement vehicle rentals through a combination of AS/400 applications and a series of manual processes. This type of rental frequently involves third parties such as insurance companies and repair shops. In some cases, the repair facility functions as the insurer for the cost of the rental. To achieve the level of customer service expected of Enterprise, branch employees function as intermediaries between customers and other groups. At critical points during the rental, communications are necessary to avoid misunderstandings and interrupted or disrupted service. Currently, manual telephone calls are made by each branch to the various parties involved based on information provided by the E-CARS Rental Application to the branches on a daily basis. This process is referred to as "call-back" and consists of an Enterprise employee contacting a representative of one of the parties involved in the rental over the telephone. This is a necessary, but time consuming process that is often viewed as a disruption by the repair shops in particular. In some cases, multiple branches manage rentals for customers with cars at the same repair shops, resulting in multiple interruptions during the day. Since most repair shops utilize the same people in the office and in the shop, these telephone calls reduce their internal productivity and are viewed as an annoyance. To reduce the frequency of interruption during the day, these repair shops need an electronic method of informing the branches of the status of the vehicles under repair in their shops. This would allow the repair facility to manage their time more effectively and serve as an incentive to use Enterprise in favor of other companies that are still operating intrusively. Additionally, it would allow branch employees the opportunity to better utilize the time they would have spent on the telephone, performing other tasks. The purpose of this project is to replace the current electronic repair shop callback system with an Internet version. This will allow any repair shop with access to the Internet the ability to enter information about vehicles. By utilizing the Internet, installation and updates will be almost transparent to the repair shops.

Scope

The Vehicle Messaging project is intended to provide a non-intrusive method of managing communications between Enterprise rental branches, repair shops and insurance companies.

- The end-user product will be an "easy-to-use" an Internet application that allows the repair shops to communicate electronically with Enterprise rental branches.
- The callback functions of the E-CARS application will be modified to react to electronic repair facility information.
- Automatic requests for rental extensions through insurance companies will be handled for ARMS authorized rentals.

Functionality within Scope

Automated and manual interfaces with external areas are required for various purposes to implement the project objectives. The following interfaces will be established:

- Easy to use Internet application for maintaining the status of work being performed on the renter's vehicle while the vehicle is at the repair facility.
- Application upgrade will be transparent to the end user.
- Comprehensive on-line help and user documentation will be developed.
- Interface for ARMS authorized rentals to request extensions from insurance companies.
- Method of security for the Internet and Body Shop.
- Method of password delivery.
- Built in flexibility for changes, future International connections and future on-line reservations.
- U.S. and Canadian access via service providers.
- Identification of method of Internet connection via ISP (Internet Service Provider)
 - 100% coverage for all areas is needed
- Provide support plan for Branches and Body Shops.
- Send and receive logs on the AS/400 for tracking purposes and later development of management reports.
- Migration of existing repair shops to the new application.

- Demo environment will be created.
- On-line enrollment will be available.
- Method for Administrators to add and delete codes and receive questions and problems from the repair shops.

Functionality Out of Scope

The following functionality is currently out of the scope of this project:

- Real-time updates from AS/400 application database to the repair facilities communications.
- Management reports and on-line tracking inquiry.
- Non-English or European rentals.
- Online reservations.
- Claims Connection managed rentals will not be supported.
- Alert to the repair facility when updates need to be done
- Alert to the Administrator when status has not been checked or updated by the repair facility.

Assumptions

- Current AS/400 hardware configuration is adequate for the purposes of this project.
- ARMS department will be responsible for all AS/400 project components.
- Development resources are available.
- Body Shop has the ability to get onto the Internet.
- Body Shop must meet the minimum requirements of the ISP.
- Enterprise will facilitate access to an ISP if needed.
- New Web server will be functional.
- Connectivity from Web server to Production AS/400 will be functional.
- All appropriate support is in place.
- All sales material has been created.
- Test shops have been chosen.
- Program can handle volume of 50,000 or more Body Shops.

Project Goals and Objectives

Goals	Objectives
Improve the efficiency of the current manual repair facility callback process	<ul style="list-style-type: none"> • Develop an Internet PC-based application. • Move connectivity of the application to an ISP. This will allow access to the Internet application as long as a modem and web browser exist. • Provide a flexible application. • Provide upgrades that allow minimal disruption to the end user.
Improve the relationship between Enterprise, repair facilities, and insurance companies.	<ul style="list-style-type: none"> • Eliminate telephone callbacks to the repair shops by sending and receiving information on-line.

Deliverable Scope

- Initial Project Charter
- Project Control File
- High Level Work Plan
- Initial Solution Prototype
- Solution Prototype
- Application Development Plan

Organizational Change

Role	Assignment
Project Sponsor	Bruce Clifton
Project Manager	Michele Goodman
User Liaisons	Mike Hutta (Corporate Rental Management) Randy Haselhorst (ARMS-Technical) Matt Gallant (Rental)
Team Members	<p><u>ARMS/ARMS Technical</u> Karin Metzger, Pam Mosca, Dan Brevard, Danielle Gerloff, Russell Dittmar</p> <p><u>Client Server Engineering</u> Mark Adams, Victor Mack, Gary Herbst, Derik Reiser</p> <p><u>AS/400 Engineering</u> Rich Wall, Dan Koerkenmeier</p> <p><u>Systems Performance & Security</u> Greg Hannibal</p> <p><u>Operations</u> Jim Miller, Jeff Simington, Ken Bono</p> <p><u>Marketing</u> Dave Smith</p> <p><u>Advertising</u> Steve Smith</p> <p><u>Technical Support Center</u> Dave Dillard, Carol Davinroy</p> <p><u>Technical Writing</u> Courtney Beisner</p> <p><u>Communications</u> Paul Langhorst</p> <p><u>PC Development: Rental/ISS/Admin</u> Gary Pike, Dan Davison, Ken Hogan, Doris Pickerill, Libby Abbott, Jeff Lorentz, Todd Fyffe, Richard Mallrich, Bob Morin, Chad Gordon, Kevin LaFata</p>

PROJECT APPROACH

Managing Issues and Change

When requests for change that result in a change of scope are accepted, the revised project scope must be reconciled to the project's goals and objectives. This applies to either an increase or decrease in scope change. All accepted change requests must support a goal or objective.

Issue/change management is a shared activity between the Project manager and Sponsor. The Project Manager is responsible for managing the change process, but works with the key user to agree on the resolution of issues and changes. The Rental Issue/Change Management tool will be used to monitor issues and change requests.

Status Reporting

The developers are responsible for producing weekly status reports to their Project Manager, who in turn submits a weekly status report that will summarize the project's progress. A weekly status meeting will be held so each area can give an update on their areas of responsibility on the project.

Quality Assurance

All documents and deliverables will be reviewed for quality and functionality prior to implementation.

Quality will be measured through customer satisfaction. Customer is defined as the group or individual using the project component in question. Initial user acceptance testing will be performed by all involved groups through an in-house beta site "repair facility". Final user acceptance testing will involve an actual repair facility or group of facilities.

Risk Management

This project involves use of a new communications methodology, several different groups within Enterprise, and the integration of an Internet PC based application with an AS/400 application.

Following are the risks that have been identified specifically for this project and the strategies identified to manage those risks.

Project Risk	Risk Management Strategies
Development resource availability <ul style="list-style-type: none">• Since multiple development groups must interact, there is a greater possibility of misunderstanding	<ul style="list-style-type: none">• Develop summary and detail technical specifications• Obtain commitments from process owners• Obtain consensus through facilitated sessions• Conduct weekly status meetings to ensure good communications on the project
Communications or methodology is insufficient to handle transaction volume <ul style="list-style-type: none">• This project will implement processes that have never been modeled before.• The total number of repair facilities and the corresponding transaction volume is not specifically known	<ul style="list-style-type: none">• Obtain realistic commitments from marketing for repair facility volume• Develop realistic benchmark test scenarios
Project is "time-boxed" <ul style="list-style-type: none">• The required implementation date is fixed• Some required processes have been implemented before	Obtain additional project resources is necessary to meet deadlines Renegotiate the time-line if the lack of knowledge concerning the new processes involved with this project preclude a timely implementation
Decision-making Authority <ul style="list-style-type: none">• Participants may not have the authority to make critical decisions about the application components.	<ul style="list-style-type: none">• Decision making guidelines will need to be established.
Business Knowledge of Project Team <ul style="list-style-type: none">• The project team is somewhat knowledgeable about or experienced in the business area.	<ul style="list-style-type: none">• Work with the business areas to become more knowledgeable.• Provide flexibility in the schedule for the learning curve.
Skills with Development Technology <ul style="list-style-type: none">• Some team members may not have formal knowledge of the technology.	<ul style="list-style-type: none">• We will need to provide training to team members on the technology.
Availability of key user <ul style="list-style-type: none">• The user liaison is out of the office or unavailable	<ul style="list-style-type: none">• Establish an alternate person with decision making authority.• Determine a method for contacting the key user for emergencies.
Full-Time Project Manager <ul style="list-style-type: none">• The PM is not working on the project full-time.	<ul style="list-style-type: none">• Designate an alternate to assist in the Project Manager's absence.

Approval Signatures

The following individuals have reviewed this Project Charter and by signing below agree to the stipulations herein:

_____ Bruce Clifton - Business Sponsor	_____ Date
---	---------------

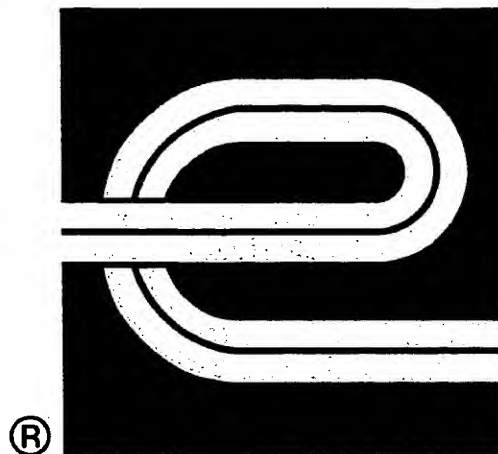
_____ Bill Tingle - IS Sponsor	_____ Date
-----------------------------------	---------------

_____ Mike Hutta - User Liaison (Corporate Daily Rental)	_____ Date
--	---------------

_____ Randy Haselhorst - User Liaison (ARMS)	_____ Date
---	---------------

_____ Matt Gallant - User Liaison (Rental)	_____ Date
---	---------------

_____ Michele Goodman - Project Manager	_____ Date
--	---------------



Enterprise Rent-A-Car

ARMS - Vehicle Messaging System

Overview

May 16, 2001

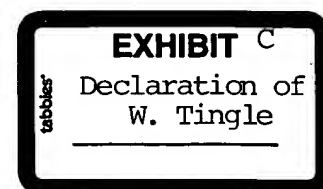


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Document Control

Last Modified By:	Lucinda Santos, E-Commerce Group
Last Modified Date:	5/16/01
Purpose of Modification:	Creation of document.

Last Modified By:	
Last Modified Date:	
Purpose of Modification:	

1 Project Definition

1.1 ARMs Auto 1.0 Overview – October 15, 1998

Enterprise rental branches currently manage replacement vehicle rentals through a combination of AS/400 applications and a series of manual processes. This type of rental frequently involves third parties such as insurance companies and repair shops. In some cases, the repair facility functions as the insurer for the cost of the rental. To achieve the level of customer service expected of Enterprise, branch employees function as intermediaries between customers and other groups. At critical points during the rental, communications are necessary to avoid misunderstandings and interrupted or disrupted service.

Currently, manual telephone calls are made by each branch to the various parties involved based on information provided by the E-CARS Rental Application to the branches on a daily basis. This process is referred to as "call-back" and consists of an Enterprise employee contacting a representative of one of the parties involved in the rental over the telephone. This is a necessary, but time consuming process that is often viewed as a disruption by the repair shops in particular. In some cases, multiple branches manage rentals for customers with cars at the same repair shops, resulting in multiple interruptions during the day. Since most repair shops utilize the same people in the office and in the shop, these telephone calls reduce their internal productivity and are viewed as an annoyance. To reduce the frequency of interruption during the day, these repair shops need an electronic method of informing the branches of the status of the vehicles under repair in their shops. This would allow the repair facility to manage their time more effectively and serve as an incentive to use Enterprise in favor of other companies that are still operating intrusively. Additionally, it would allow branch employees the opportunity to better utilize the time they would have spent on the telephone, performing other tasks.

The purpose of this project is to replace the current electronic repair shop callback system with an Internet version. This will allow any repair shop with access to the Internet the ability to enter information about vehicles. By utilizing the Internet, installation and updates will be almost transparent to the repair shops.

1.2 Enhancements

4/25/00 - Add "Un-Enroll" functionality (new API) to the system.

9/13/00 - 1) Display the contract number on the page for the body shop to see. 2) Add an information/error message to discourage double clicks.

1/29/01 - Upon investigation we learned that the list now totals 523. The design of the application will not support loading a list of this size. It was decided that adding a search by "Facility Name" and "E-mail address" would speed up the search.

1.3 ARMs Auto 1.5 - March 27, 2001

The enhancements to ARMs Auto 1.5 should allow search ability for the administrator on both the Facility Name and Email address. By selecting search on the Facility Name, the user may enter the full facility name, which would give a result of all customers with that exact name. Enter a single word of the facility name, which would give a result of all customers that have that word in their name. Enter any three-letter combination, which would give a result of all facilities that contain the three-letter combination anywhere in the word. To get the best result using the E-mail Address search feature, the user should enter the entire email address as it would appear on the return mail notification, which would give a result of the exact facility name associated with that email. The user may also search on the E-mail address by entering a single word of the E-mail address, which would give the result of all facilities with that word in their E-mail address. By entering any three-letter combination, the result will be of all facilities that contain the three-letter combination anywhere in the word. (See Appendix A)

Improve the load time of the Administrator's Facility list. In order to improve the load time of the Administrator's Facility Name list, we will store the facility name locally.

Allow the customer to sort by any category (Renter's Name, Vehicle, RO#, Insurance Company, Status) on the Vehicle List page. When the column heading is selected the list will be sorted alphabetically. An arrow will be displayed next to the column heading to indicate that column is sorted and in which sequence (ascending or descending). The Insurance company name will be added to each record on the

Vehicle Request Detail page as well as the Vehicle List Printer Friendly page to allow the body shop to sort by Insurance Company. (See Appendix B)

Allow the user to click on an Interactive Calendar for the estimated completion date. An Interactive Calendar will be provided for the Vehicle Request Detail page "Estimated Completion Date" entry. The Interactive Calendar will be based on the browser version that is being used. If the browser version can read Java Script, the Interactive Calendar will be displayed, otherwise the calendar will be displayed as is in the current version. (See Appendix C)

Give the user a confirmation message that the Status update on an open ticket as been processed and give a new look to the Vehicle Status Code option. A Confirmation message will be given to the user after they have made an update to the status of an open ticket confirming that the status has been processed. A new look will be applied to the Vehicle Status Code Option to give the user a more clear understanding of the option that they have chosen. (See Appendix D)

An icon will be displayed on the home page with the title "What's New". The link will display a separate page that lists any enhancements made to the site. (See 2.1 - figure 1 and Appendix E)

2 Business Case – ARMs Auto

2.1 Update Vehicle Status

- 1) After accessing the Internet, the Vehicle Message System user would navigate to a specific web site, http://www.enterprise.com/arms_auto/. This site will use a theme similar to the other Enterprise Rent-A-Car web sites.
- 2) The user will be prompted to enter a user id and password. The user will have five attempts to enter a valid password. After five invalid attempts, the user's account will be inactivated and a message page will be displayed.



Figure 1

- 3) If the user id and password are accepted as a valid customer id, the user will be presented with the Callback List page, basically a list of messages needing a response, and the Last Login and Last Update date and time. A portion of each Vehicle Message in the displayed listing of cars will be a "hyperlink" to the detail record. If there are no messages needing a response, an appropriate message will be displayed in place of the list.



Enterprise

rent-a-car

ARMS Automotive

[Home](#)
[Help](#)
[Feedback](#)
[Options](#)


Vehicle Request List

Please select a vehicle to update its repair status:

RENTER'S NAME ▲	VEHICLE	RO #	INSURANCE COMPANY	STATUS
DAVIS, MARY	1995 DODGE SPIRIT	2352	STATE FARM-CLAIMS CENTRAL MO	Suspended Update
GRUBBS, RACHEL	1995 DODGE SPIRIT	312312	TRAVELERS INS-KY PERSONAL LINES	Suspended Update
HAWKINS, STEPHEN			AMERICAN STATES-ST. LOUIS	Need Update
HILL, DAVID			STATE FARM-IL CLAIM CENTRAL	Need Update
HILL, HOWARD			ALLSTATE INS-LOMBARD	Need Update
HURWITZ, JUDY			CUSTOMER PAYS	Need Update
INGRAM, SHERRIE	1994 CORSICA	1234567	PROGRESSIVE INS-SWANSEA	Suspended Update
IRISH, VERONICA	1993 SUNDANCE		GEICO-MACON (REGIONAL)	Need Update
JONES, YVONNE			STATE FARM-CLAIMS CENTRAL MO	Need Update
KAISOR, LEROY			SAFECO INS-INDIANAPOLIS	Need Update
KERWIN, LAQUETTA	1997 TAHOE	23456	FARM BUREAU-LIBERTY	Suspended Update
KIJURNA, NATALIE	1998 SEBRING		STATE FARM-MT. PROSPECT	Need Update
KING, MARK D.	1998 MALIBU	2501		Need Update
KLEIN, MEYER	CORSICA		HARTFORD INS-NAPERVILLE	Need Update
KUSNIERZ, ANNA	1997 CAMERO		SAFEWAY INSURANCE-15CD	Need Update
LEWIS, JEAN	1998 JEEP GRAND	1324	CONSTITUTION CAS-CHICAGO	Suspended Update
LINGARD, RAMON	1996 CHEROKEE		SAFECO INS-ST. LOUIS	Need Update

Figure 2

- 4) When the users click on a message, the Callback Detail page will display. This will be a data entry form, with all known data pre-filled in.
- Year & Make/Model will be filled in, but will be editable.
 - Renter Name, Enterprise (branch) Phone, Insurance Co., Claim Number, Adjustor Name, and Adjustor Phone are display only.
 - Repair Order Number is required for most Vehicle Statuses.
 - Vehicle Status must be chosen from an administrator configurable, pre-defined list.
 - Depending on the Vehicle Status, the Repair Order Number, Details, Additional Comments, and Estimated Completion Date may be required or optional.
 - The text of the valid Details responses will change based on the entered Vehicle Status.



ARMS Automotive
[Home](#) [Help](#) [Feedback](#) [Options](#)

Vehicle Request Detail

The following information is requested by Enterprise and will be shared with the insurance company.

Vehicle 1995 DODGE SPIRIT

Renter Name DAVIS, MARY

Repair Order # 2352

Vehicle Status - PLEASE SELECT A REPAIR STATUS -

Comments

Est Completion June 07 2001

MORE

JUNE 2001						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY 2001						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST 2001						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Contract # / Enterprise Phone: D193800 / (314) 634-4440

Insurance Co / Claim # STATE FARM CLAIMS CENTRAL MO / 5340313

Adjustor Name / Phone / (877) 738-5464

☒ Advance to the next vehicle

Please click the button only once.

Done
Suspend
Clear
Cancel

Figure 3

- 5) When the user enters the Callback Detail page, the only enabled fields will be Year, Make/Model, Repair Order Number, and Vehicle Status. Details, Additional Comments, and Estimated Completion Date will be disabled. Depending on the user's response to Vehicle Status, the remaining required and optional fields will be enabled.
- 6) The Callback Detail page will have 4 action buttons.
 - Done – the record is updated and if the “Advance to the next vehicle” option is selected then the next record will be shown. Otherwise, the Vehicle Request List page will be shown.
 - Suspend – the record will remain in the list for the user to come back too.
 - Clear – the entries are cleared/reset.
 - Cancel - discard any changes, and return to the Vehicle Request List page.

2.2 Online Enrollment


- 1) If the user selects Online Enrollment from the Login page, they will be taken directly to the Online Enrollment page, without logging in.

The screenshot shows the top of the Enterprise Rent-A-Car website. The header includes the Enterprise logo, the text "rent-a-car", and "ARMS Automotive". Navigation links for "Home", "Help", and "Feedback" are in the top right. The main heading is "Online Enrollment". Below it, a welcome message states: "Welcome to the ARMS Automotive System! The ARMS Automotive System provides you with a hassle free way to communicate directly with Enterprise Rent-A-Car and insurance companies concerning customer vehicles." The next paragraph says: "Please contact your Enterprise Rent-A-Car representative for assistance in completing the following enrollment information. If you do not know who your representative is, just contact the nearest Enterprise Rent-A-Car office and we will be more than happy to assist you with this process." A third paragraph states: "Once you have completed this one-time enrollment process, you can access the ARMS Automotive System at any time by entering your user identification and password." At the bottom center is a large "Enroll" button.

Figure 1

This screenshot shows the same "Online Enrollment" page but with a different message: "To become an authorized user of the ARMS Automotive System, you must submit a set of enrollment information." The following paragraph reads: "Before proceeding, please ensure that you are completing the enrollment with an Enterprise Rent-A-Car employee. In order to enroll, you will need your group/branch and customer numbers which they will provide. Please call 1-800-RENT-A-CAR to reach your nearest branch location." Below this text are four input fields labeled: "Enterprise Employee Number", "Enterprise Update Code", "Group/Branch Number", and "Enterprise Customer Number". To the right of these fields is a "GO" button with a right-pointing arrow.

Figure 2



ARMS Automotive

[Home](#) [Help](#) [Feedback](#)

Online Enrollment

Please verify that the following facility information is correct. If any of the information is incorrect, please let your Enterprise representative know so that the correct information can be added.

Facility Name DEB'S TEST COMPANY NO 1

Address 1 TESTING DR
ST LOUIS, MO 60126

Phone Number (800) 511-3500

Please enter a four-to-eight character user ID and password. Your user ID and password should not be the same, and can contain any combination of letters and numbers. Both the user ID and password are case sensitive, so if you choose something with all lowercase letters, you must enter it with all lower case letters every time you enter the system. You may wish to write down your user ID and password for future reference.

User ID

Password

Confirm Password

Remember My ID and Password ☐ [What's this?](#)

Force Password Change ☐

Facility Status ☒ Active

Choose the method by which you would like to be notified daily when you have vehicle requests waiting. Choose "None" if you do not wish to be notified. Make sure to specify the correct e-mail address if you wish to be notified by e-mail, or the correct fax number if you wish to be notified by fax.

Please note: Providing your e-mail address, even if you do not request daily notification, will enable us to send your user ID and password to you via e-mail in the event that you forget one of them.

Notification Preference ☒ None ☐ Email ☐ Fax

Fax Number

E-Mail Address

Internet Service Provider

Enterprise Contact EALICK, DEBORAH S

Figure 3

- 2) After completing the online enrollment page, their entries will be entered into the customer file, with an "inactive" status. After approval and activation on the AS/400 platform, administrative personnel would only need to insert the Enterprise Customer Number, and activate the account.

2.3 Help Function

- 1) A page will be provided with help information about the site and how to use it.

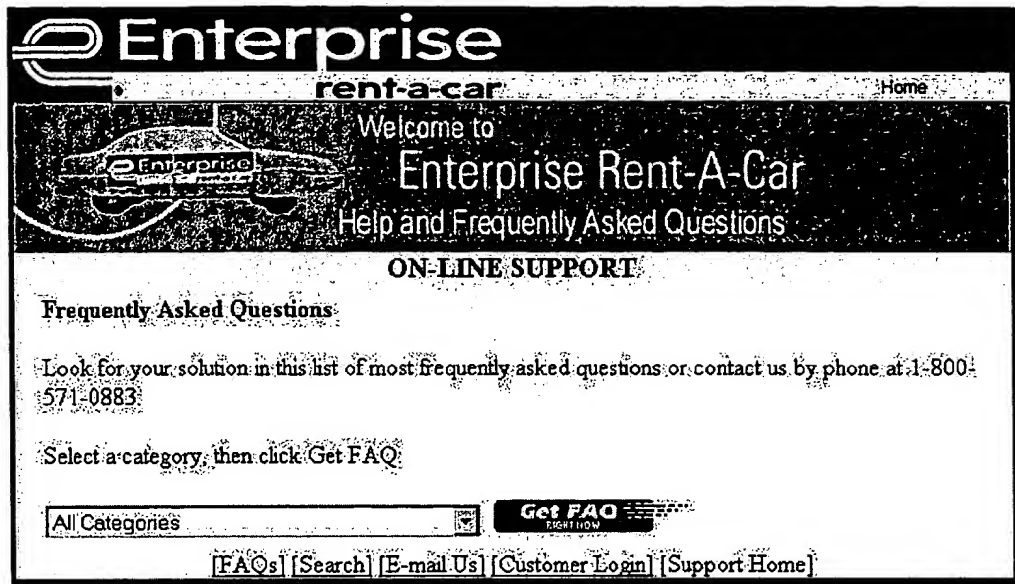


Figure 1

2.4 Demonstration & Information

- 1) An interactive online demo as a "guest" user will provide a guided tour through the site.

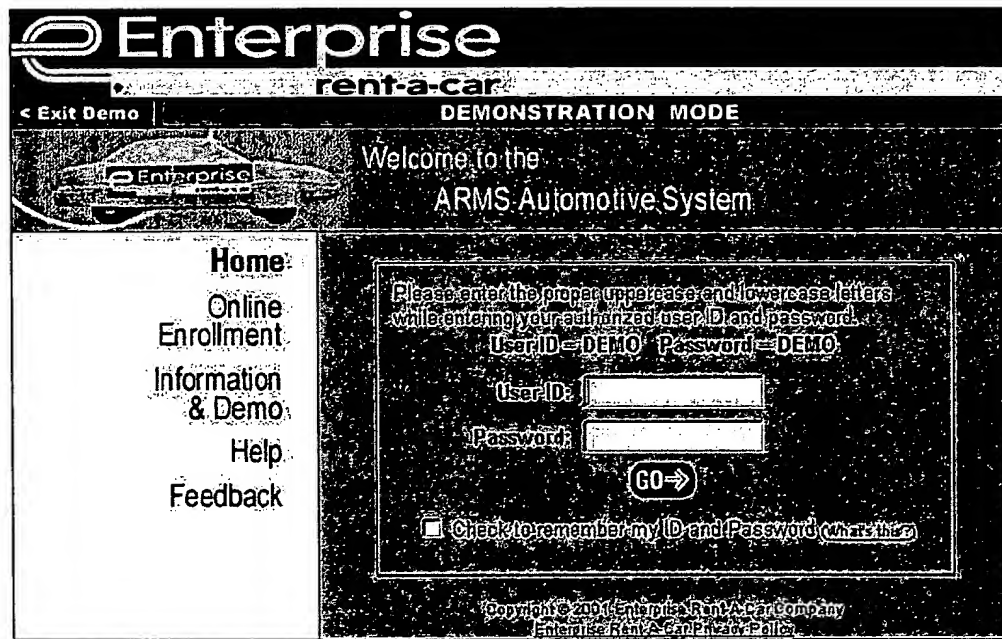


Figure 1

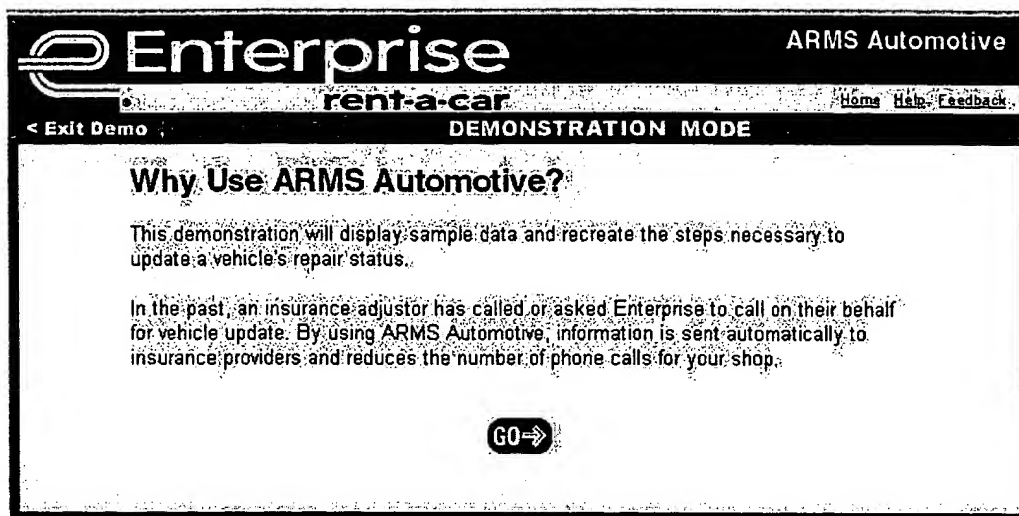


Figure 2

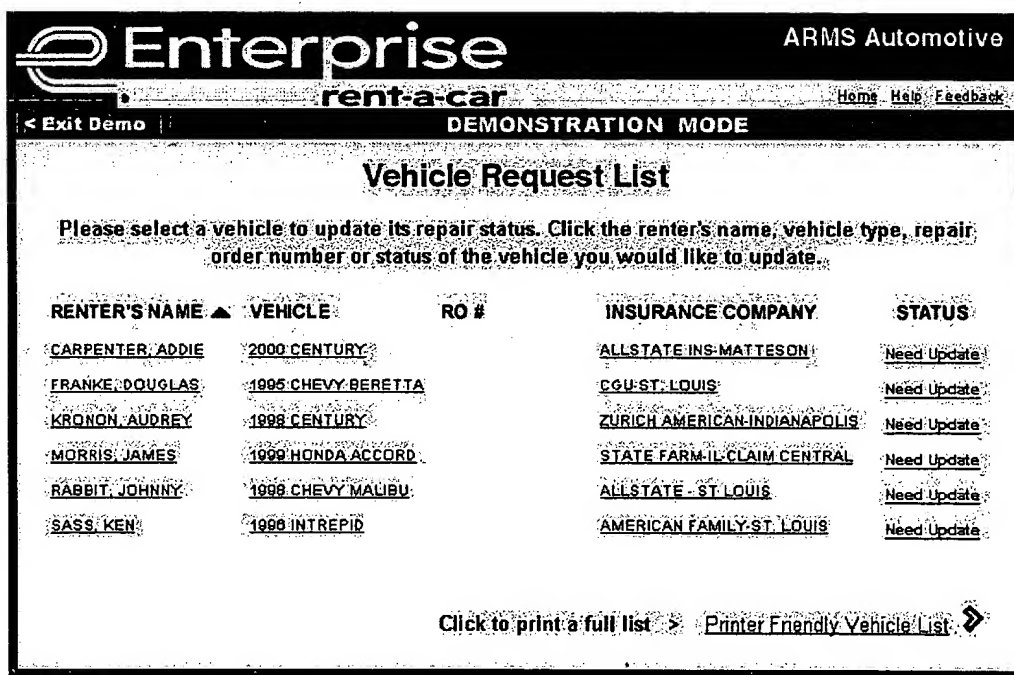



Figure 3



ARMS Automotive

[Home](#) [Help](#) [Feedback](#)

< Exit Demo

DEMONSTRATION MODE

Vehicle Request Detail

The following information is requested by Enterprise and will be shared with the Insurance company.

Vehicle

2000

CENTURY

Renter Name

CARPENTER, ADDIE

Repair Order #

Vehicle Status

- PLEASE SELECT A REPAIR STATUS -

Comments

Est. Completion

June

07

2001

Contract # / Enterprise Phone: 0794117 / (123) 456-7890

Insurance Co. / Claim #: ALLSTATE INS-MATTESON. / 2704427704-01

Adjustor Name / Phone: EWINO. / (555) 555-5555

☒ Advance to the next vehicle [What's this?](#)

Done

Suspend

Clear

Cancel

JUNE 2001

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY 2001

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST 2001

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Figure 4

2.5 Feedback

The screenshot shows a web browser window with the Enterprise rent-a-car logo in the top left and 'ARMS Automotive' in the top right. A navigation bar contains links for 'Home', 'Help', and 'Feedback'. The main heading is 'Feedback'. Below it, a paragraph asks the user to complete the form to send feedback or a help request, noting that fields with an asterisk are required. Another paragraph asks for a detailed description of any application difficulties. The form includes four input fields: 'Facility Name', 'Contact Name', 'Contact Phone Number', and 'E-mail Address', each preceded by an asterisk. Below these is a large text area labeled 'Enter your feedback here:'. A 'Submit' button is at the bottom.

Enterprise ARMS Automotive
rent-a-car Home Help Feedback

Feedback

Please complete the following form to send us your feedback or help request. All fields with a red asterisk (*) are required fields.

If you are experiencing difficulties with the application, please describe your problem in as much detail as possible so that we may assist you.

* Facility Name:

* Contact Name:

* Contact Phone Number:

E-mail Address:

* Enter your feedback here:

Submit

Figure 1

2.6 Administrative Menu

- 1) If the user-id and password are accepted as a valid administrator id, the user will be presented with the Administration Menu. Administrators will have two levels of access.

The screenshot shows the 'Enterprise rent-a-car' logo at the top left and 'ARMS Automotive' at the top right. Below the logo is a navigation bar with links: Home, Help, Feedback, Options. The main heading is 'Administrative Menu'. Under this, there is a section 'Facility Maintenance' with a sub-link '(select by facility status)'. Below this are two bullet points: 'Disabled (0 facilities)' and 'Active (722 facilities)'. To the right of these is a search section with the text 'Or search by:' followed by a dropdown menu set to 'Facility Name' and a 'GO' button. Below the search section is a link 'Add New Facility'. At the bottom, there is a section 'Super Administrator Menu' with four expandable items: 'Status Codes', 'Detail Codes', 'Administrators', and 'Frequently Asked Questions (FAQ)'.

Figure 1

- 2) Top-level administrators will have the ability to create other administrators, add/edit/delete Vehicle Status and Details codes, and activate and modify customer accounts.

The screenshot shows the 'Enterprise rent-a-car' logo at the top left and 'ARMS Automotive' at the top right. Below the logo is a navigation bar with links: Home, Help, Feedback, Options. The main heading is 'Maintain Status Codes'. Below this is a form with a label 'Select A Status Code:' followed by a dropdown menu set to '- New Status Code -' and a 'GO' button. Below the form is a section with the text 'Update the form below to modify this status code or select a different one from the above list to add a new or change/delete another status code.' followed by three input fields: 'Sequence Number:', 'Description:', and 'Generates Callback Message:' (with a dropdown menu set to '- Select One -'). At the bottom of the form are two buttons: 'Add' and 'Cancel'. In the bottom right corner, there is a link 'Return To Administrative Menu'.

Figure 2

The screenshot displays the 'Enterprise rent-a-car' web application interface. At the top, the logo 'Enterprise rent-a-car' is on the left, and 'ARMS Automotive' is on the right. A navigation bar contains links for 'Home', 'Help', 'Feedback', and 'Options'. The main heading is 'Maintain Detail Codes'. Below this, there are two sections for selection: 'Select A Status Code:' with a dropdown menu showing '- Select A Status Code -' and a 'GO' button; and 'Select A Detail Code:' with a dropdown menu showing '- New Detail Code -' and another 'GO' button. A paragraph of instructions follows: 'Update the form below to modify this detail code or select a different one from the above list to add a new or change another detail code.' The form contains several fields: 'Sequence Number:' (text input), 'Description:' (text input), 'Additional Comments:' (dropdown menu showing '- Select One -'), 'Estimated Completion Date:' (dropdown menu showing '- Select One -'), 'Send To Adjustor:' (dropdown menu showing '- Select One -'), 'Generates Callback Message:' (dropdown menu showing '- Select One -'), 'Repair Order Number:' (dropdown menu showing '- Select One -'), and 'Year/Make/Model:' (dropdown menu showing '- Select One -'). At the bottom of the form are three buttons: 'Update', 'Cancel', and 'Delete'. In the bottom right corner, there is a link with a left-pointing arrow labeled 'Return To Administrative Menu'.

Figure 3

- 3) Second level administrators will have the ability to activate and modify customer accounts.

2.7 Frequently Asked Questions

- A page of Frequently Asked Questions with an email submission form will be provided for questions and feedback.

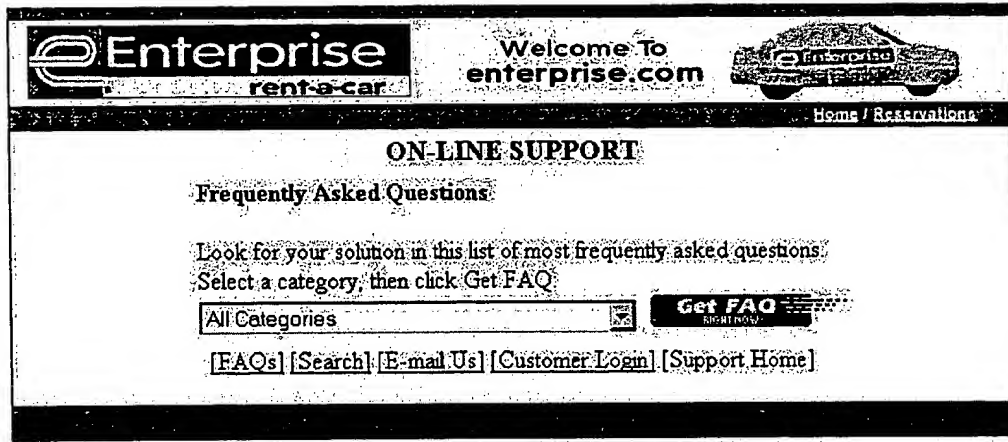
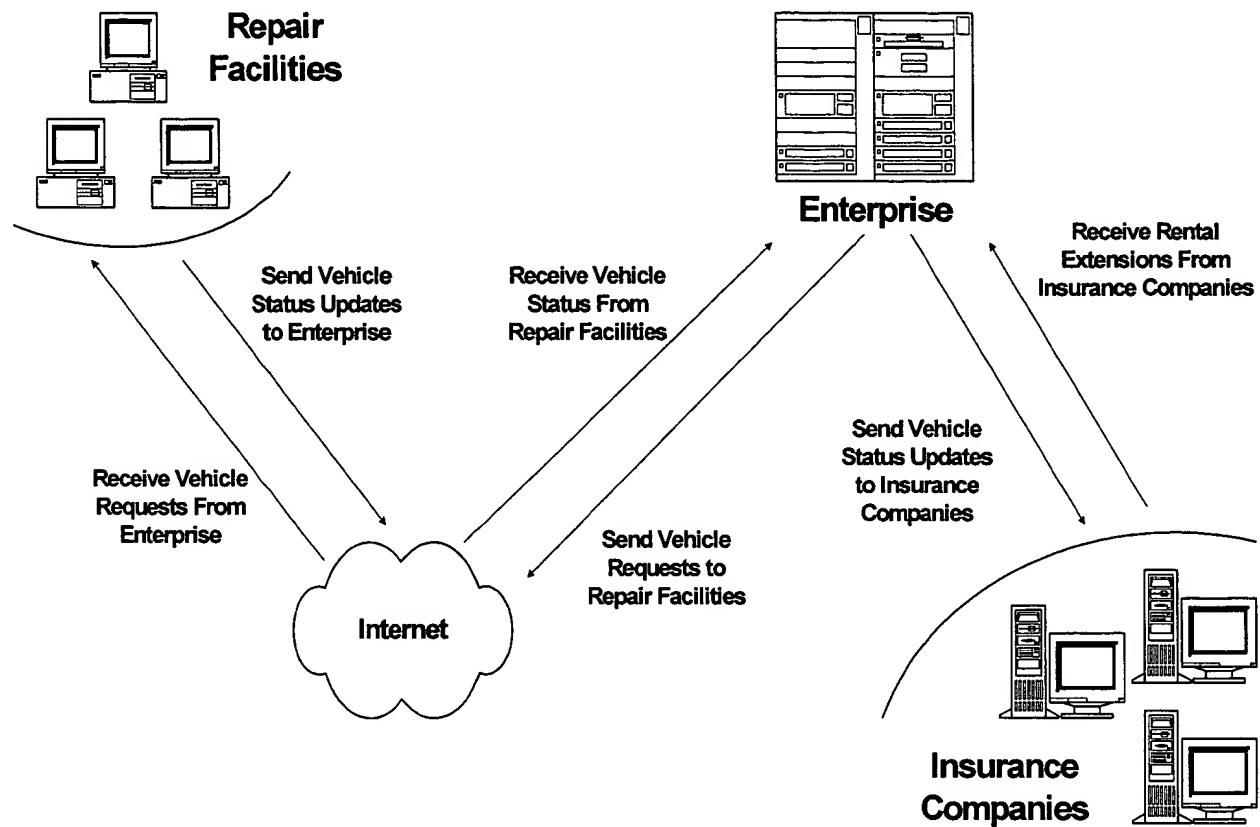


Figure 1

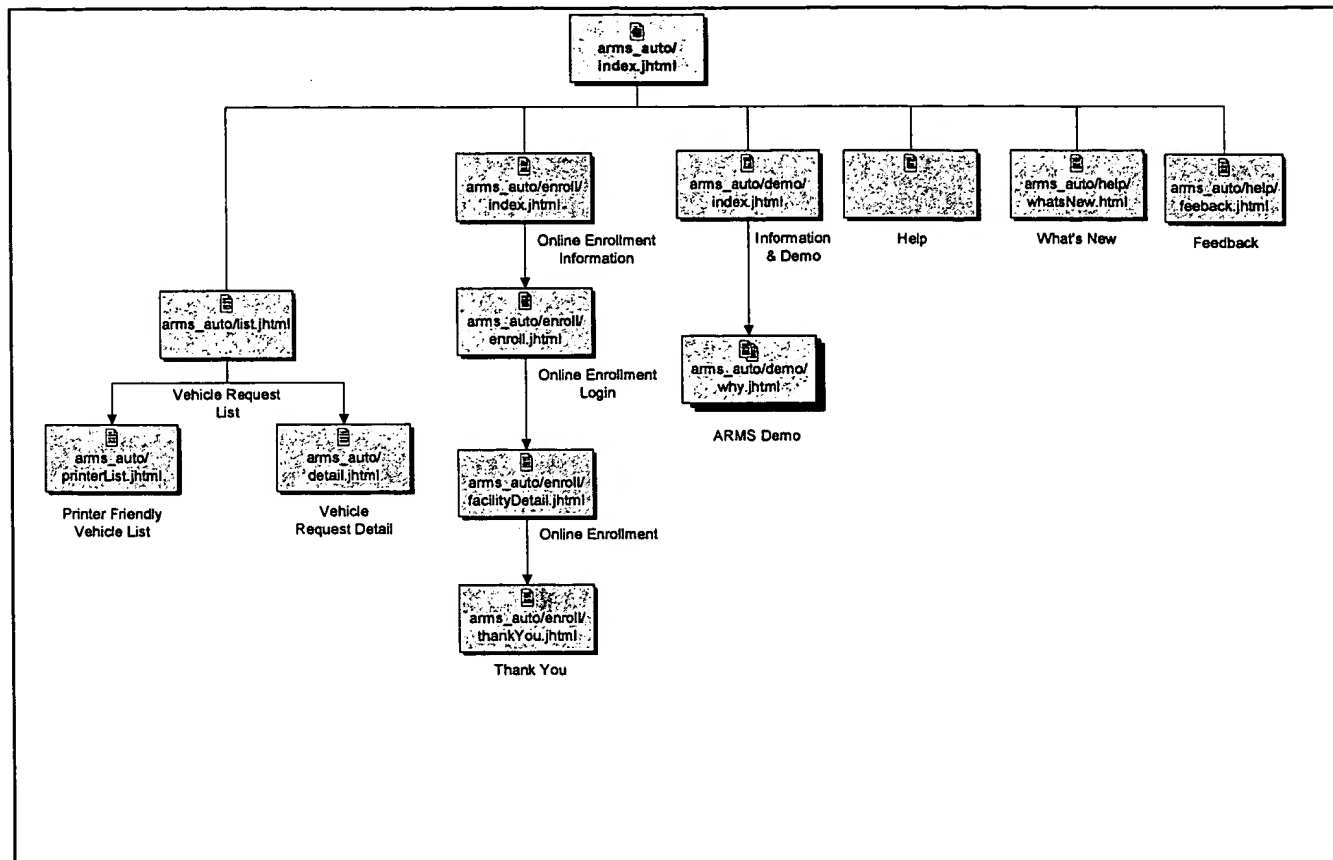
3 Architecture

ARMS Automotive Information Flow



4 Page Flow

ARMs Auto 1.5



5 Technical Specifications

5.1 Services and Files

Process	File(s) Used	File Description	System
CBS310S – Enroll Customer	CB005P00 - U	Electronic Customer Master	Central
CBS311S – Retrieve Status Codes	CB011P03 CB014P03	Primary Status Codes Secondary Status Codes	Central
CBS312S – Add Primary Status Code	CB011P03 - U	Primary Status Codes	Central
CBS313S – Change Primary Status Code	CB011P03 - U	Primary Status Codes	Central
CBS314S – Delete Primary Status Code	CB011P03 - U	Primary Status Codes	Central
CBS315S – Add Secondary Status Code	CB014P03 - U	Secondary Status Codes	Central
CBS316S – Change Secondary Status Code	CB014P03 - U	Secondary Status Codes	Central
CBS317S – Delete Secondary Status Code	CB014P03 - U	Secondary Status Codes	Central
CBS318S – Do Callback (Update Callback)	CB007P00 - U CB012P00 - U RACMSC - U RACBRMST-U RACCBK1 - U RACCB1 - U CB026P01 - U RACPENDC CB028P02 - U	Logical over RACCBCTL by Group/Branch/Ticket Electronic Callback Detail Notes File Message Control File Reservation File Consolidated Adjustor Callbacks File Consolidated Bodyshop Callbacks File Suspended Callbacks File Tickets in the closing process Callback Retrieval Log File	All Distributed Machines – A,E,F,I,K,L, M,N,P,S,T,W, Y
CBS319S – Add Suspended Callback Record	CB026P01 - U	Suspended Callbacks	All Distributed Machines – A,E,F,I,K,L, M,N,P,S,T,W,Y
CBS320S – Change Suspended Callback Record	CB026P01 - U	Suspended Callbacks	All Distributed Machines – A,E,F,I,K,L, M,N,P,S,T,W,Y
CBS321S – Retrieve Callbacks	CB007P01 - U CB026P01 RACSUSP RACBCOC RACCBDET-U CB027P02 - U	Logical over Callback Control Suspended Callbacks Ticket Close Pending File Callback Consolidation File Callback Detail / Note File Callback Send Log File	All Distributed Machines – A,E,F,I,K,L, M,N,P,S,T,W,Y

CBS322S – Retrieve Customer Information	CM000L03	Customer Information	All Distributed Machines – A,E,F,I,K,L, M,N,P,S,T,W,Y
CBS323S – Retrieve Employee Information		Employee Information	Central
CBS324S – Retrieve Branch Info	OFFDRB	Office Directories Branch Master	Central
CBS325S – Fax Callback Notification	CBS325P	Fax Printer File	Central
CBS326S – Check for Callbacks	CB007P01	Logical over Callback Control	All Distributed Machines – A,E,F,I,K,L, M,N,P,S,T,W,Y
CBS327S – Check Callback Consolidation	RACBCOC	Callback Consolidation File	All Distributed Machines – A,E,F,I,K,L, M,N,P,S,T,W,Y
CBS340S – Activate/Deactivate Electronic Callback Customer	CB005P00 – U	Electronic Customer Master	Central

U = File is used and may be updated by the service.

- All of the jobs/services listed above run in the Tuxedo subsystem.
- All of the jobs/services listed in the table have a routing job that runs on the Corvette system to direct the transaction to the appropriate system to be processed. The exception is CBS327S and this service is used by other services on the distributed systems.
- The AS/400 jobs are named using the following convention; CBS310S has a routing service running on Corvette as CBR310A. The job running on the machine where the processing actually takes place would be CBS310A. This job, Enroll Customer runs on Central. So the CBS310A job is running in the Tuxedo subsystem on Central and the routing Job is running in the Tuxedo subsystem on Corvette.

Job File Program – This is where OPS checks to see what needs to be done if a job errors on the AS/400 and no on-call personnel have responded to the error.

CENTRAL

JOB TRACKING INQUIRY

AAJF01/B

Job #	Freq	Date	Cat	Upd	Inp	Seq	Cons	Inter	ABCDEFGHIJKLMNOPQRSTUVWXYZ	R/T
CBS318A	AS	TUXE	DP	Y	N		N		A EF I KLMN P ST W Y ECR	

Job Name TUXEDO JOB - UPDATE BODYSHOP CALLBACKS

Special Considerations

IF JOB IS IN MESSAGE WAIT, DUMP JOB. NEW JOB WILL START WHEN A NEW REQUEST IS RECEIVED.

IF THIS J650Y COLLIDES WITH THIS JOB, THIS JOB CAN BE ENDED SO J650Y CAN COPY THE FILE RACCBCON TO RACCBLOC. CBS318A WILL BE AUTOMATICALLY RESTARTED THE NEXT TIME SOMEONE TRIES TO DO BODYSHOP CALLBACK FUNCTIONS VIA THE INTERNET.

ADD 3/17/00 JAB

F1=Exit F11=Description F12=Special F13=Distribution F14=Re-Run

6 Reporting

6.1 Error Codes

Event Code	Pages Used By	Page Name	6.1.1.1.1.1.1.1 Error Message
5000	Facilities And Administrators	Login Error Page (loginError.jhtml)	Please specify a user name.
5001	Facilities And Administrators	Login Error Page (loginError.jhtml)	Please specify a password.
5002	Facilities And Administrators	Login Error Page (loginError.jhtml)	Please specify a user name and password.
5003	Facilities And Administrators	Login Error Page (loginError.jhtml)	An invalid user name or password was specified. Please try again.
5004	Facilities And Administrators	Login Error Page (loginError.jhtml)	Login attempt failed. Please try again.
5005	Facilities And Administrators	Login Error Page (loginError.jhtml)	This account is currently inactive. Please contact Enterprise support at 1-800-571-0883 if you wish to reactivate your account.
5006	Facilities And Administrators	Password Change Page (chgpw.jhtml)	Please enter your old password.
5007	Facilities And Administrators	Password Change Page (chgpw.jhtml)	The old password you supplied is incorrect. Please try again.
5008	Facilities And Administrators	Password Change Page (chgpw.jhtml)	Please enter a new password.
5009	Facilities And Administrators	Password Change Page (chgpw.jhtml)	Please re-type the new password in the "Confirm Password" box.
5010	Facilities And Administrators	Password Change Page (chgpw.jhtml)	The new password must be between 4 and 8 characters in length.
5011	Facilities And Administrators	Password Change Page (chgpw.jhtml)	The new password can contain only alphabetic and/or numeric characters. Please try again.
5012	Facilities And Administrators	Password Change Page (chgpw.jhtml)	The new password and confirm password do not match. Please try again.
5013	Facilities And Administrators	Password Change Page (chgpw.jhtml)	The new password cannot be the same as the user id.
5014	Facilities And Administrators	Password Change Page (chgpw.jhtml)	The new password cannot be the same as the old password. Please try again.
5015	Facilities And Administrators	Forgot Password Page (forgotpw.jhtml)	Please specify an e-mail address so that we can retrieve your account information.
5016	Facilities And Administrators	Forgot Password Page (forgotpw.jhtml)	The e-mail address you specified does not match any that we have on file. Please call 1-800-571-0883

			for further assistance in retrieving your ID and password.
5017	Facilities And Administrators	Forgot Password Page (forgotpw.jhtml)	An error occurred while attempting to get your account information. More than one account has registered with this same e-mail address. Please call 1-800-571-0883 for further assistance in retrieving your ID and password.
5018	Facilities And Administrators	Administrative & Facility User Shared Errors	An error occurred while attempting to retrieve the list of status and detail codes.
5019	Facilities And Administrators	Facility User Errors	Session information lost.
5020	Facilities And Administrators	Facility User Errors	An error occurred while attempting to retrieve user information.
5021	Facilities And Administrators	Facility User Errors	An error occurred while attempting to retrieve the vehicle request list.
5022	Facilities And Administrators	Facility User Errors	An error occurred while attempting to process the vehicle update.
5023	Facilities And Administrators	Facility User Errors	We are currently unable to perform your vehicle update because another process is currently working with this vehicle. Please try again in a few minutes.
5024	Facilities And Administrators	Facility User Errors	We are currently unable to perform your vehicle update because the ticket is closed
5025	Facilities And Administrators	Facility User Errors	An error occurred while attempting to add a suspended vehicle update.
5026	Facilities And Administrators	Facility User Errors	An error occurred while attempting to change a suspended vehicle update.
5027	Facilities And Administrators	Administrative User	Session information lost.
5028	Facilities And Administrators	Administrative User	An error occurred while attempting to add the status code.
5029	Facilities And Administrators	Administrative User	An error occurred while attempting to change the status code.
5030	Facilities And Administrators	Administrative User	An error occurred while attempting to delete the status code.
5031	Facilities And Administrators	Administrative User	An error occurred while attempting to add the detail code.
5032	Facilities And Administrators	Administrative User	An error occurred while attempting to change the detail code.
5033	Facilities And Administrators	Administrative User	An error occurred while attempting to delete the detail code.

5034	Facility User Pages	(enroll/enroll.jhtml)	According to our records, group branch "GPBR" and customer number "CCCCC" is already enrolled. Note: GPBR/CCCCC will be replaced with the group/branch and customer number that was attempted to enroll
5035	Facility User Pages	(enroll/enroll.jhtml)	Please specify the Enterprise employee number.
5036	Facility User Pages	(enroll/enroll.jhtml)	Please specify the Enterprise employee number and update code.
5037	Facility User Pages	(enroll/enroll.jhtml)	Please specify the update code.
5038	Facility User Pages	(enroll/enroll.jhtml)	Please specify the group branch number and employee number.
5039	Facility User Pages	(enroll/enroll.jhtml)	Please specify the employee number, update code, and group branch number.
5040	Facility User Pages	(enroll/enroll.jhtml)	Please specify a valid group branch number.
5041	Facility User Pages	(enroll/enroll.jhtml)	Please specify the customer number.
5042	Facility User Pages	(enroll/enroll.jhtml)	Please specify group branch and customer numbers.
5043	Facility User Pages	(enroll/enroll.jhtml)	Please specify employee number, group branch and customer numbers.
5044	Facility User Pages	(enroll/enroll.jhtml)	All information is required.
5045	Facility User Pages	(enroll/enroll.jhtml)	You have entered an invalid employee number. Please try again.
5046	Facility User Pages	(enroll/enroll.jhtml)	You have entered an invalid group branch or customer number. Please try again.
5047	Facility User Pages	(enroll/enroll.jhtml)	You have entered an invalid employee number or update code. Please try again.
5048	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a user ID.
5049	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a password.
5050	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a user ID and password.
5051	Facility User Pages	(enroll/facilityDetail.jhtml)	Please type the password twice for verification.

5052	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a user ID and verify the password.
5053	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a password and type it again for verification.
5054	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a user ID password and re-type the password for verification.
5055	Facility User Pages	(enroll/facilityDetail.jhtml)	The password and confirmed password are not the same.
5056	Facility User Pages	(enroll/facilityDetail.jhtml)	The user ID you specified is already in use. Please choose a different user ID.
5057	Facility User Pages	(enroll/facilityDetail.jhtml)	The group/branch and customer number you specified is already enrolled.
5058	Facility User Pages	(enroll/facilityDetail.jhtml)	Please select a password that is different from your user ID.
5059	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a valid e-mail address we should use to notify you.
5060	Facility User Pages	(enroll/facilityDetail.jhtml)	Please specify a valid fax number we should use to notify you.
5061	Facility User Pages	Vehicle Request List Page (list.jhtml)	Please specify a vehicle year, make, and model. Note: Year must be greater than or equal to 1950 and less than the current year plus two.
5062	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	The vehicle year specified is invalid.
5063	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	Please specify a repair order number.
5064	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	Please select a repair status for this vehicle.
5065	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	Please fill out the additional comments field.
5066	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	Additional comments field is too long (x characters) -- please limit your input to 90 characters. Note: 'x' is the current number of characters in the repair note field
5067	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	The estimated completion date may not be more than 30 days prior to today.
5068	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	The estimated completion date may not be more than 60 days out from today.
5069	Facility User Pages	Vehicle Request Detail Page (detail.jhtml)	The estimated completion date is invalid. Please choose a valid date.

5070	Facility User Pages	Notification Preference Page (chgnotify.jhtml)	Please specify an e-mail address for your e-mail notification.
5071	Facility User Pages	Notification Preference Page (chgnotify.jhtml)	Please specify a fax number for your fax notification
5072	Facility User Pages	Feedback Page (help/feedback.jhtml)	Please complete all the required fields.
5073	Facility User Pages	Feedback Page (help/feedback.jhtml)	The e-mail address you specified is not a valid e-mail address. Please try again.
5074	Facility User Pages	Feedback Page (help/feedback.jhtml)	Please enter your feedback in the space provided.
5075	Administrative User Pages	Administrator Menu Page (index.jhtml)	Please specify a Group Branch to search for.
5076	Administrative User Pages	Administrator Menu Page (index.jhtml)	Please specify a Customer Number to search for.
5077	Administrative User Pages	Administrator Menu Page (index.jhtml)	Please specify a User ID to search for.
5078	Administrative User Pages	Administrator Menu Page (index.jhtml)	Group/branch searches must be 4 characters.
5079	Administrative User Pages	Administrator Menu Page (index.jhtml)	Facility Name must be at least 3 characters and not more than 33 characters.
5080			E-mail searches must be at least 3 characters minimum.
5081	Administrative User Pages	Facility List Page (facilityList.jhtml)	There are no facilities that match that criteria.
5082	Administrative User Pages	Facility Detail Page (facilityDetail.jhtml)	The "Password" field must be between four and eight characters.
5083	Administrative User Pages	Facility Detail Page (facilityDetail.jhtml)	The "User ID" field must be between four and eight characters.
5084	Administrative User Pages	Facility Detail Page (facilityDetail.jhtml)	The "User ID" and "Password" fields must be between four and eight characters.
5085	Administrative User Pages	Administrator List Page (adminList.jhtml)	NONE
5086	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	The employee number you entered does not match any employees in the database
5087	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please specify a user ID.
5088	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please specify a password.
5089	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please specify a user ID and password.
5090	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please type the password twice for verification.

5091	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please specify a user ID and verify the password.
5092	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please specify a password and type it again for verification.
5093	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please specify a user ID password and re-type the password for verification.
5094	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	The password and confirmed password are not the same.
5095	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	The user ID you specified is already in use. Please choose a different user ID.
5096	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	This employee is already in the system. If you wish to make changes, select the employee from the list of administrators, and edit the information.
5097	Administrative User Pages	Administrator Detail Page (adminDetail.jhtml)	Please select a password that is different from the ID.
5098	Administrative User Pages	Maintain Status Codes Page (statusCodes.jhtml)	The "Sequence Number" must be a number between 1 and 999.
5099	Administrative User Pages	Maintain Status Codes Page (statusCodes.jhtml)	The "Description" field may not be blank.
5100	Administrative User Pages	Maintain Status Codes Page (statusCodes.jhtml)	Please select an option from the "Generates Callback Message" drop down list.
5101	Administrative User Pages	Maintain Status Codes Page (statusCodes.jhtml)	You may not delete this status code until all its detail codes have been deleted.
5102	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	The "Sequence Number" must be a numeric between 0 and 999.
5103	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	The "Description" field may not be blank.
5104	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	Please select an option from the "Additional Comments" drop down list.
5105	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	Please select an option from the "Estimated Completion Date" drop down list.
5106	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	Please select an option from the "Send To Adjustor" drop down list.
5107	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	Please select an option from the "Generates Callback Message" drop down list.
5108	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	Please select an option from the "Repair Order Number" drop down list.
5109	Administrative User Pages	Maintain Detail Codes Page (detailCodes.jhtml)	Please select an option from the "Year/Make/Model" drop down list.

7 Support Plan

Abbreviations:

ECG – e-Commerce Group (synonymous with Internet Application Development or “IAD”)

RHD – Rental Help Desk

MSA – Middleware Systems Administration

ISP – Internet Service Provider

Example 1

FAILURE/PROBLEM	User can hit the site, but cannot log in receiving a “Cannot retrieve user information” type of error.
DETECTION	<ul style="list-style-type: none">• Call by user to RHD• Application notification possibly already sent to pager of Internet App Dev On Call via Dynamo log monitoring script
NOTIFICATION	IAD On Call
ACTION/STEPS	<p>If the problem did not come from the RHD and it can not be corrected immediately, notify RHD @ ??? and Advanced Support (Michael Green?).</p> <p>General Steps:</p> <ul style="list-style-type: none">• Verify the login problem by using an administrative user ID and password.• Check the Dynamo log for information about the problem.• Check the Dynamo administrative interface for other possible information. <p>Additional Steps:</p> <p>If this is a database-related problem, contact Data Management On Call.</p>
ESCALATION	IAD Backup On Call

Example 2

FAILURE/PROBLEM	User can hit site and log in, but gets an error saying that it cannot retrieve the vehicle list or the status code list
DETECTION	<ul style="list-style-type: none">• Call by user to Rental Help Desk• Application notification possibly already sent to pager of Internet App Dev On Call via Dynamo log monitoring script
NOTIFICATION	IAD On Call
ACTION/STEPS	<p>If the problem did not come from the RHD and it can not be corrected immediately, notify RHD @ ??? and Advanced Support (Michael Green?).</p> <p>General Steps:</p> <ul style="list-style-type: none">• Verify the login problem by using an administrative user ID and password. This may work, but try and click on “Status Codes” or perform another process that retrieves information from the AS/400 like viewing a customer detail record.• Check the Dynamo log for information about the problem.• Check the Dynamo administrative interface for other possible information. <p>Additional Steps:</p> <ul style="list-style-type: none">• If this is a Tuxedo-related problem, contact MSA On Call.
ESCALATION	IAD Backup On Call

Example 3

FAILURE/PROBLEM	Tuxedo Job Failure These jobs all run in the subsystem Tuxedo.
DETECTION	<ul style="list-style-type: none">Notify operations via J450 that one of the jobs is at a "Message Wait" state. <p>When a job in a subsystem goes to message wait a message is sent to the message queue qsysopr. If the error message is not responded too by an on-call person in a timely manor, an OPS operator is paged. The OPS operator in turn then follows the procedure and contacts the team noted in job file.</p>
NOTIFICATION	ECR On-Call is notified by OPS
ACTION/STEPS	<p>The following are the steps taken by On-Call person to determine a problem with a job.</p> <p>General Steps:</p> <ul style="list-style-type: none">Proceeds to the subsystem where program is running or is at a "message wait" stateTo work with the job in question take option 5Use the programs job log (option 10) to help determine the cause of the errorEnd the job to create a job "dump". Use this information to help determine the problem and the corrective action needed.
ESCALATION	<p><i>See Attachment:</i> ARMS On Call Escalation plan</p> <ul style="list-style-type: none">ARMS Backup On CallARMS Application Architect

8 APPENDIX A - Search on Facility Name and Email Address

8.1 Criteria for Facility Name Search

Exact Match

The User may enter the full customer name.

- Result of all customers with that exact name.

Word Search

The User may enter a single word of the customer name.

- Result of all customers that have that word in their name.

Letter Combination Search (Three letter Minimum)

The User may enter a combination of three letters.

- Result of all customer names that contain the letter combination anywhere in the word.

NO SINGLE LETTER SEARCH

- A customer should not be able to enter a single letter for a search. Example: enter the letter "A" to get all the customer that begin with the letter "A" OR enter the letter "A" and get back all the customers that have an "A" in their name.

8.2 Examples

- The user will be able to Search on Facility Name by selecting form the drop box "Facility Name" and entering text in the input box, one of the following ways: (example – we will search on "Carson's Collision Repair Ctr.")

	Type	Rule	Search ON	Results
•	Exact Match	A User enters customers full name.	"Carson's Collision Repair Ctr."	Will return all the customers with the name "Carson's Collision Repair Ctr".
•	Word Search	A USER enters part of customer name.	"Collision"	Will return all the customers that have the word "Collision" as part of their name. Example: <ul style="list-style-type: none"> • Bob Haytt Collision • Buckles Collision Center • Caron's Collision Repair Ctr. • Collision Center of Maryland
•	Letter Combination Search	A User enters a combination of three letters.	"Car"	Will return all the customer name that contain a word that begins with "Car" Example: <ul style="list-style-type: none"> • Allied Carstar • Carstar Wenzls • Car Star – St. Joe • Carlisle Chevrolet • Carson's Collision Repair Ctr. • Nemith Motor Car Body Shop
•	NO Search	A USER enters a letter search.	"C"	<ul style="list-style-type: none"> • Will return an error page telling the user they have not entered enough characters to complete their search.

8.3 Criteria for Email Address Search

IT IS RECOMENDED THAT THE COMPLETE EMAIL ADDRESS BE USED FOR THE SEARCH.

- **Exact Email Search (BEST RESULTS)**

The User must enter the entire email address as it appears in the return mail notification.

- The result would be the Facility Name (customer name) that is associated with this email. Each facility can only have one email associated with it.

- **Word Search**

The User may enter a single word of the customer name.

- Result of all customers that have that word in their email.

- **Letter Combination Search (Three letter Minimum)**

The User may enter a combination of three letters.

- Result of all customer emails that contain the letter combination anywhere in the word.

- **NO SINGLE LETTER SEARCH**

- A customer should not be able to enter a single letter for a search. Example: enter the letter "A" to get all the customer that begin with the letter "A" OR enter the letter "A" and get back all the customers that have an "A" in their name.

This is an example of a return notification that we currently receive when an email address is not correct.

-----Original Message-----

From: Mail Delivery Subsystem [mailto:MAILER-DAEMON@enterprise.com]

Sent: Wednesday, March 07, 2001 6:04 AM

To: vmsadmin@erac.com

Subject: Returned mail: User unknown

The original message was received at Wed, 7 Mar 2001 06:04:10 -0600 (CST)
from director [10.9.195.120]

----- The following addresses had permanent fatal errors -----

donci@gate.net (User would search on this email address)

----- Transcript of session follows -----


.... while talking to mailhost.gate.net.:

>>> RCPT To:<donci@gate.net>

<<< 550 <donci@gate.net>... User unknown

550 <donci@gate.net>... User unknown

9 APPENDIX B – Sorting on Vehicle List Page



ARMS Automotive

Home Help Feedback Options

Vehicle Request List


Please select a vehicle to update its repair status.

RENTER'S NAME	VEHICLE	RO #	INSURANCE COMPANY ▼	STATUS
NEWSOM, JOSEPH S	1997 PICK-UP		USAA-CENTRAL REGION ARMS	Need Update
ROTH, EMILY	1995 TAURUS		USAA-CENTRAL REGION ARMS	Need Update
GRUBBS, RACHEL	1995 DODGE SPIRIT	312312	TRAVELERS INS-KY PERSONAL LINES	Suspended Update
MONEY, CASSANDRA			STATE FARM-ST. LOUIS	Need Update
UPCHURCH, LISA	1992 GMC SAFARI		STATE FARM-ST. LOUIS	Need Update
ROGERS, ALINE	1988 CUTLASS		STATE FARM-ST. LOUIS	Need Update
SLAUGHTER, KALEEN	1997 CHRYSEBRINO		STATE FARM-ST. LOUIS	Need Update

Sort ascending or descending by column name

10 APPENDIX C - Interactive Calendar

The Interactive calendar will be based on the browser version that is being used. If the browser version can read Java Script, the Interactive Calendar will be displayed, other wise the calendar will be displayed as is in the current version.



ARMS Automotive

[Home](#) [Help](#) [Feedback](#) [Options](#)

Vehicle Request Detail

The following information is requested by Enterprise and will be shared with the insurance company.

Vehicle: 1995 DODGE SPIRIT

Renter Name: GRUBBS, RACHEL

Repair Order #: 312312

Vehicle Status: - PLEASE SELECT A REPAIR STATUS -

Comments:

Est Completion: June 13 2001

Contract # / Enterprise Phone: D043591 / (818) 997-9151

Insurance Co / Claim #: TRAVELERS INS KY PERSONAL LINES / 273ADSOY2007E

Adjustor Name / Phone: TEAM 4 / (800) 842-8172

☒ Advance to the next vehicle

Please click the button only once:

MORE

JUNE 2001

S	M	T	W	T	F	S
				1	2	
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30


JULY 2001

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST 2001

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

11 APPENDIX D – Confirmation Page and Vehicle Status Code Options

**Enterprise**

rent-a-car

ARMS Automotive

[Home](#) [Help](#) [Feedback](#) [Options](#)

You have just sent the repair status for GRUBBS, RACHEL to Enterprise and the insurance company.

Vehicle Request Detail

The following information is requested by Enterprise and will be shared with the insurance company.

Vehicle

Renter Name HAWKINS, STEPHEN

Repair Order #

Vehicle Status -- PLEASE SELECT A REPAIR STATUS --

Comments

Est Completion June 07 2001

Contract # / Enterprise Phone: D818185 / (314) 931-1976

Insurance Co / Claim #: AMERICAN STATES-ST. LOUIS / 05A993282526

Adjustor Name / Phone: STOLTZ, CATHERINE / (800) 843-1487

☒ Advance to the next vehicle

Please click the button only once.

JUNE 2001

S	M	T	W	T	F	S
						1 2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY 2001

S	M	T	W	T	F	S
	1	2	3	4	5	6
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				


AUGUST 2001

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Confirmation of a status update


Vehicle Status Code options

12 APPENDIX E – What's New Page

ARMS Automotive

[Home](#) [Help](#) [Feedback](#) [Options](#)

What's New at ARMS Automotive



We're making changes based on your comments. Let us know what you want.

The vehicle status now has two drop down boxes.
Just select a status category in the first box and then select the vehicle status in the second. *

Each action performed now has a confirmation message.
Look at the top of the next page to confirm the action you just completed.

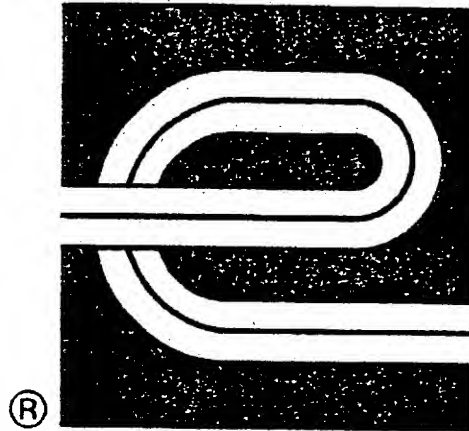
Add the estimated completion date with a single click.
Just click the estimated completion date on the calendar and we'll fill it in for you! *

Recent additions to the site include:

The insurance company was added to the Action List.
As you requested, the insurance company is now in the Action List. You can even sort by the insurance company!

Forgot your password?
You can now have it e-mailed to you from the login page.
Just click on the "Forgot your password?" link and we will send your password within 2 hours.

*Only available with Internet Explorer 4.0 and Netscape 4.5 browsers and above.

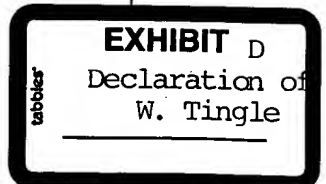


Enterprise Rent-A-Car

ARMS - Vehicle Messaging System Phase II Project Charter

August 20, 1999

Charter marking
beginning of
ARMS Auto Project
(ARMS Auto was
new name for
ARMS VMS Phase II)



Overview

VMS Phase II will migrate the existing VMS system to the new Internet Architecture. This process will include redesigning of the web pages, interfacing directly to the AS400 by using Tuxedo/Jolt, and adding approved enhancements to the system.

Scope

- The VMS II project is intended to move over too the New Internet Architecture. This will allow for ease of development.
- The Web pages with be created in HTML, and Java. RGA will be developing the look and feel of the web pages.
- Tuxedo and Jolt services will be created to eliminate or reduce the need for a database on the Unix machine. If databases are required on Unix they will be migrated to Informix.

Functionality within Scope

- Phase II will convert the existing functionality to the Unix/Dynamo environment.
- Code will be converted to Java Beans/HTML
- Tuxedo and Jolt services developed to access the AS400
- Online and Support documentation modified to reflect changes.
- Real time access to the 400 application database to the repair facilities.
- Link to online reservations
- Alert to the Administrator when status has not been checked or updated by the repair facility via e-mail.
- Look into changing the code verbiage with out losing the history - Some how make our arms codes more under the covers and make more sense the body shops.
- Provide a report by insurance Company and Body Shop.
- Provide an auto notification by Fax or e-mail that there are Callbacks.
- Print task list - Provide more space on the printout for writing comments.
- Provide the local branch phone number through the Personalization Server.
- Allow for both the Americanized version of a web page and a Canadian version to be display.
- Allow the customer information to be pre filled as much as possible. Allow customer to enter in customer number and update customer data.
- Streamline to registration process.
- If the body shop knows their user name then we can send the user name and password to their registered e-mail. If they do not know their user name or they do not have a registered password then they must follow the current procedure.

Functionality Out of Scope

The following functionality is currently out of the scope of this project:

- Claims Connection managed rentals will not be supported.
- Allow the car owner to check the status of their car.

Assumptions

- Current AS/400 hardware configuration is adequate for the purposes of this project.
- ARMS department will be responsible for all AS/400 project components.
- Development resources are available.
- Body Shop has the ability to get onto the Internet.
- Body Shop must meet the minimum requirements of the ISP.
- Enterprise will facilitate access to an ISP if needed.
- Connectivity from Web server to Production AS/400 will be functional.
- All appropriate support is in place.

- Test shops have been chosen.
- Program can handle volume of 50,000 or more Body Shops.

Project Goals and Objectives

Goals	Objectives
Improve the efficiency of the Internet VMS system.	<ul style="list-style-type: none"> • Establish look and feel of pages • Establish an efficient transactional flow through the web pages. • Provide upgrades that allow minimal disruption to the end user. • Ensure monitoring tools and testing tools are in place to monitor the performance of the application.
Move VMS to new Internet Architecture	<ul style="list-style-type: none"> • Re-design Web Pages in Html • Convert C programs to Java • Convert necessary MS-SQL database to Informix. • Create Jolt/Tux services
Move VMS to the New Internet Look and Feel	<ul style="list-style-type: none"> • Finalize on Web Page Design • Work With Marketing and RGA to sign off on Story boards as quickly as possible.

Deliverable Scope

- Initial Project Charter
- Project Control File
- High Level Work Plan
- Solution Prototype
- Application Development Plan

Organizational Change

Role	Assignment
Project Sponsor	Jeff Brummett
Project Manager	Anita Klopfenstein
User Liaisons	David Smith (Rental Web Liason) Randy Haselhorst (ARMS-Technical)
Team Members	<u>ARMS/ARMS Technical</u> Karin Metzger, Pam Mosca, Dan Brevard, Russell Dittmar <u>Client Server Engineering</u> Mark Adams, Victor Mack, Derik Reiser

	<p><u>AS/400 Engineering</u> Rich Wall,</p> <p><u>Operations</u> Jim Miller, Jeff Simington, Ken Bono</p> <p><u>Marketing</u> Jennifer Cavanaugh</p> <p><u>Advertising</u> Steve Smith</p> <p><u>Technical Support Center</u> Dave Dillard, Carol Davinroy</p> <p><u>Technical Writing</u></p> <p><u>Communications</u></p> <p><u>Rental/ISS/Admin</u> Libby Abbott, Jeff Lorentz, Gary Thomae, Ian Poertner</p>
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PROJECT APPROACH

Managing Issues and Change

When requests for change that result in a change of scope are accepted, the revised project scope must be reconciled to the project's goals and objectives. This applies to either an increase or decrease in scope change. All accepted change requests must support a goal or objective.

Issue/change management is a shared activity between the Project manager and Sponsor. The Project Manager is responsible for managing the change process, but works with the key user to agree on the resolution of issues and changes. The Rental Issue/Change Management tool will be used to monitor issues and change requests.

Status Reporting

The developers are responsible for producing weekly status reports to their Project Manager, who in turn submits a weekly status report that will summarize the project's progress. A weekly status meeting will be held so each area can give an update on their areas of responsibility on the project.

Quality Assurance

All documents and deliverables will be reviewed for quality and functionality prior to implementation.

Quality will be measured through customer satisfaction. Customer is defined as the group or individual using the project component in question. Initial user acceptance testing will be performed by all involved groups through an in-house beta site "repair facility". Final user acceptance testing will involve an actual repair facility or group of facilities.

Risk Management

This project involves use of a new communications methodology, several different groups within Enterprise, and the integration of an Internet PC based application with an AS/400 application.

Following are the risks that have been identified specifically for this project and the strategies identified to manage those risks.

Project Risk	Risk Management Strategies
Y2K <ul style="list-style-type: none">The October 31st freeze of implementing changes or new programs into production enhances the urgency of completing the project	<ul style="list-style-type: none">Managing ExpectationPrioritizing business requirementsSign off on Pages, and Business Requirements
Development resource availability <ul style="list-style-type: none">Since multiple development groups must interact, there is a greater possibility of misunderstanding	<ul style="list-style-type: none">Develop summary and detail technical specificationsObtain commitments from process ownersObtain consensus through facilitated sessionsConduct weekly status meetings to ensure good communications on the project
Decision-making Authority <ul style="list-style-type: none">Participants may not have the authority to make critical decisions about the application components.	<ul style="list-style-type: none">Decision making guidelines will need to be established.
Business Knowledge of Project Team <ul style="list-style-type: none">The project team is somewhat knowledgeable about or experienced in the business area.	<ul style="list-style-type: none">Work with the business areas to become more knowledgeable.Provide flexibility in the schedule for the learning curve.
Skills with Development Technology <ul style="list-style-type: none">Some team members may not have formal knowledge of the technology.	<ul style="list-style-type: none">We will need to provide training to team members on the technology.
Availability of key user <ul style="list-style-type: none">The user liaison is out of the office or unavailable	<ul style="list-style-type: none">Establish an alternate person with decision making authority.Determine a method for contacting the key user for emergencies.
Full-Time Project Manager <ul style="list-style-type: none">The PM is not working on the project full-time.	<ul style="list-style-type: none">Designate an alternate to assist in the Project Manager's absence.

Approval Signatures

The following individuals have reviewed this Project Charter and by signing below agree to the stipulations herein:

_____ Jeff Brummett - Business Sponsor	_____ Date
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_____ Jeff Clark - IS Sponsor	_____ Date
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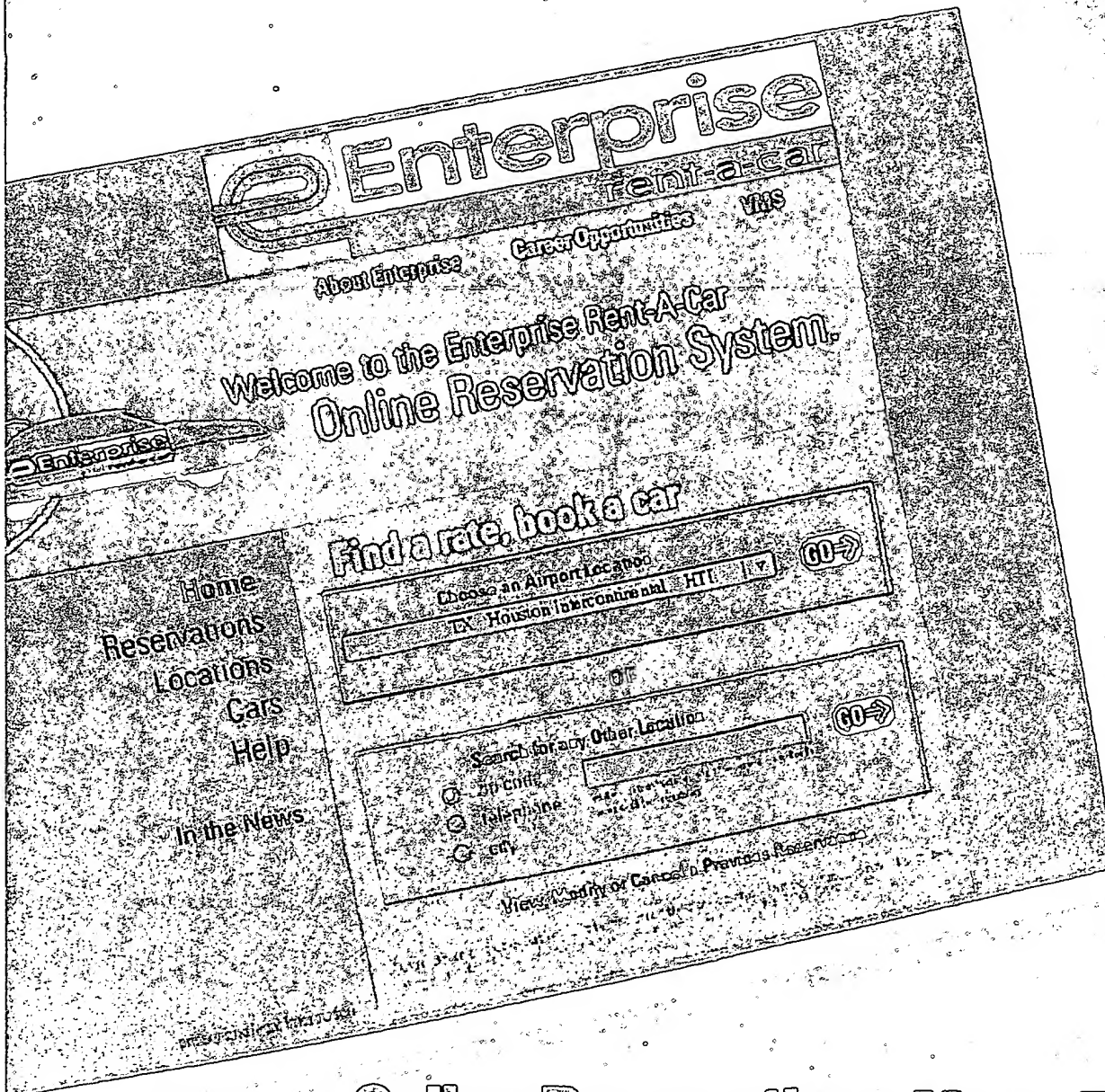
_____ Dave Smith - Rental Web Liaison	_____ Date
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_____ Randy Haselhorst - User Liaison (ARMS)	_____ Date
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_____ Matt Gallant - User Liaison (Rental)	_____ Date
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_____ Anita Klopfenstein - Project Manager	_____ Date
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Free Enterprise



- Online Reservations Mean Business
- Airports - The Sky's the Limit



Testing session for the reservation site.

What you can do to help our Internet efforts...

1. If you have a group web site address with the word "Enterprise" in it, please disable it immediately. That will ensure that when "Enterprise" is keyed in on a search engine, such as Yahoo, our reservation site will pop up as close to the top of the list as possible. Better placement helps drive more business to our site.
2. Tell your customers (after Sept. 8) about our www.enterprise.com online reservations site and what it can do for them. Make sure any signage, invoices, ticket jackets, etc. carries news about our online reservation system and is being used at your branch.
3. Familiarize yourself with the site in case customers have questions.
4. Learn what to do if your branch is sold out.
5. If body shops, or other partners in your area, ask if they can link to our site, MS01 Dan Strollo, Interactive Promotions Manager, E#86896, with all pertinent information, including company contact, phone number and e-mail address. He may be able to facilitate a link with the vendor.

Additional Internet Efforts Will Propel Every Segment of Our Business

The Enterprise Online Reservation System may be our first foray into the world of e-commerce, but it is certainly not our only effort. In fact, Enterprise has several Internet initiatives in process that will affect nearly every aspect of our business and will result in us: 1) better serving our customers, insurance and body shop partners, 2) growing our business significantly and 3) lowering our administrative costs.

ARMS Goes on the Internet

ARMS won't just be on green screens anymore! ARMS will be available on the Internet this fall. Like ARMS400, the Internet version will provide a way for our insurance partners to automatically transfer to us claims information concerning replacement vehicles. However, instead of ARMS400's green screens, our new web-based ARMS can be accessed by personal computer.

The screens look and work like other simple-to-manuever web sites so insurance partners can process information easily. No special terminal is required and training time to learn the program is minimal. Insurance providers have the option to use either ARMS400 or ARMS for the Internet. An even easier-to-use version of ARMS for the Internet is in the works and should be in place by late 2000.

Body Shop Communications System on the Internet

Enterprise is in the final stages of developing an Internet communications system that gives body shops a simple, electronic method for updating Enterprise Rental branches about the status of cars in their shop. Through a link with ARMS, it will also keep insurance companies up to date. Any body shop that is on the Internet and has the password can access it.

The communications system will assist body shops by dramatically reducing phone calls. It will also allow them to do updates when it's convenient for them and give them a way to separate themselves from their competition in the eyes of insurance companies. Easy-to-follow screens enable shops to input

information in a clear, consistent form - which will help speed up and simplify claims when they are sent to an insurance provider via ARMS.

Currently, 40 repair shops are involved in the test phase of the system in four Enterprise groups. A nationwide roll out is set for this fall. Approximately 55 percent of U.S. body shops already have Internet access and many of them are interested in going online with Enterprise due to the advantages the Internet offers over phone callbacks.

Enterprise benefits because it will improve our callback process, especially in the eyes of our insurance partners. It will also reduce the number of callbacks required so we can concentrate on other areas of our business. Best of all, it provides a closer connection to our body shop partners and is a pre-emptive measure against competitors' automated efforts.

Online Referral Car Sales in Test Phase

Three Enterprise groups - Boston, San Francisco and Southern California - are currently testing the waters of online car sales through the Internet automotive buying site, autobytel.com. The test began in May and will run through September. The groups posted all of their available inventory on the site. Customers input the make, model and year of vehicle in which they have interest, as well as price and their zip code. They are then shown a list of available vehicles in their area that meet their criteria.

Often, Enterprise vehicles are the low-price leader on the list because of our best-price, no-haggle buying concept. Customers select a car and make a purchase request. If customers pick an Enterprise vehicle, an e-mail message is sent to them, or if the customer prefers, a phone call is made by an account executive to arrange a test drive. Typically, for 1,000 cars posted, an average of 400 purchase requests are made, according to Autobytel.

Craig Kennedy

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System Description

The Automated Rental Management System (ARMS) is a state-of-the-art custom rental management application that has impacted the entire industry by creating the ability to efficiently manage every aspect of the lifecycle of an insurance replacement auto rental, from initiating a reservation and authorizing payment through electronic funds transfer. It measurably simplifies the essential three-way business integration between repair shops, insurance companies and Enterprise Rent-A-Car. Since its inception, ARMS has been used to process nearly 10 million rentals for more than 150 insurance companies throughout North America, including 22 of the top 25 carriers such as GEICO, State Farm, Met Life, Progressive, GMAC, Nationwide and USAA, as well as by more than 2,200 auto body repair shops coast-to-coast.

ARMS consists of four product offerings to meet the highly individualized needs of the insurance companies and repair shops that are Enterprise's business partners:

- ARMS/Direct – a direct connection from Enterprise's computer to insurance companies' computers allows adjusters to create their own application screens and send data to Enterprise that is fully integrated to over 4,200 North American rental locations.
- ARMS/400 – an AS/400 host-based application allows the insurance company to use the ARMS application running on Enterprise's system using a terminal session to create reservations, extend authorizations and process invoices.
- ARMS/Automotive – a Web-based product allows repair shops to use a browser to provide updates on the repair status of renters' vehicles.
- ARMS/Web – newest and graphical ARMS product features unique Web-based functionality to allow insurance companies to create reservations, extend authorizations and process invoices.

Cost of Investment

To date, the equipment and software investment for all ARMS applications has been \$11 million and development staff expenses have been \$17 million, for a total combined investment of \$28 million. The annual maintenance and insurance company-requested enhancement costs of the system, including hardware, software and staffing, total approximately \$7.5 million.

Dates Deployed

- ARMS/Direct Connection

The original ARMS connection was developed in the first half of 1992 and was implemented in the first quarter of 1993.

- ARMS/400

ARMS/400 development began in the second half of 1995. The System was first implemented in January 1996.

- ARMS/Automotive

ARMS/Automotive was developed and deployed in April 1999.

- ARMS/Web Claims

Development using the Jacada tool set began in May 1999 and was piloted to the first users in July of 1999. The newest version of ARMS/Web, based on the SUN J2EE architecture, went live in December 2000.

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Technical Profile

- **ARMS/Direct Connection**

The ARMS system consists of a pair of AS/400s acting as a redundant hub. These machines act as a primary and a backup with the data being replicated to the backup machine in a nearly real-time basis using the Vision Solutions OMS product. In the event of a failure, the boxes can switch roles, from backup to primary, in about 15 minutes. The hub receives messages, validates them and funnels them between the business partners (Enterprise and the insurance company) and 13 internal AS/400s running applications for the various geographic regions of Enterprise ("regional AS400s"). The software running on the hub is a custom-developed pipeline that handles multiple transactions simultaneously, while preserving the transmission order. Some insurance companies have integrated the communication into their core claims applications, using ANSI X.12 messages or proprietary communications formats. The messages are sent over a variety of network protocols ranging from SNA to TCP/IP. These companies avoid double entry by having direct application level communication. The X.12 messages received by Enterprise are initially processed by Extol, an EDI translator. In either case, the messages are validated and distributed where they update the application database used by the rental car counter personnel.

- **ARMS/400**

Insurance companies that have not created a direct connection from their applications based on resource decisions use either a 5250-character interface hosted off the hub AS/400s or a Web interface. ARMS/400 is a rental management application developed by Enterprise Rent-A-Car that provides insurance companies with the ability create reservations, extend authorizations, process invoices, and receive notification on insurance claims not yet reported by the consumer.

- **ARMS/Automotive**

The ARMS/Automotive component is an HTML-based Web interface hosted on six Sun servers. Three servers run the Apache Web server and three run the Dynamo application server. The application servers use BEA's Jolt connector to call Tuxedo services running on the regional AS400s. The Tuxedo services are used to get the transactional data and an Informix database is used to store user and administrative data. This allows the various body shops to electronically send repair status update reports on vehicles at their locations to Enterprise, with a pass through to insurance companies.

- **ARMS/Web**

The ARMS/400 application interface was ported to the Web using a product called Jacada that runs on Windows NT with Microsoft Internet Information Server. It downloads an applet in the users' Web browser and converts this GUI interface into a 5250 terminal connection behind the scenes, as well as manages presenting the correct window to the user based on the contents of the 5250 screen being presented. This gives insurance companies a wide variety of connectivity options for allowing their employees to interact with Enterprise.

Since the ARMS/Web Jacada release in 1999, Enterprise has since re-constructed the application based on the Sun Java 2 Enterprise Edition (J2EE) standards to provide for improved manageability, scalability and flexibility. The Web servers run the Apache Web server and BEA WebLogic is used on the application servers. The application servers use BEA's Jolt connector to call Tuxedo services running on the AS400.

Technical Excellence

Enterprise not only has been on the leading edge of technology with each evolution of the ARMS product, the company has demonstrated its commitment to continuously improve applications to better serve customers. In

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addition to maximizing the latest technologies, Enterprise has leveraged existing technology and continued to make significant investments in ARMS applications. One of the hallmarks of ARMS is its flexibility to accept change.

- In 1993, Enterprise introduced ARMS/Direct Connection, the industry's first electronic direct connection to a major insurance company customer. With this link, insurance adjusters could enter claims and car rental management information directly into their claims handling system, as well as forward rental transactions to Enterprise. By using a proprietary messaging format, the electronic connection immediately saved time for adjusters by significantly reducing the number of phone calls required for each rental transaction.
- In July 1996, two major enhancements to ARMS were introduced. First, Enterprise built an X.12 EDI connection using the Extol translator package to State Farm. Its messages subsequently formed the basis for the Collision Industry Electronic Commerce Association (CIECA) standard for automotive replacement rental transactions. Enterprise also built a host-based terminal user interface for the application that allowed insurance companies that were unable to implement the expensive electronic connection to communicate with Enterprise. As a result, insurance companies could use an application on their desk and eliminate the many phone calls required to manage the car rental process.
- In 1997, a PC application, ARMS/Automotive, was created to allow automobile repair shops to download the list of renters' vehicles being repaired at their shop and provide timely repair status updates to Enterprise. The application also allowed the shop to send the repair status updates back to Enterprise and the adjusters. This information cycle informed the adjuster about progress being made on the repair and specifically identified the potential for extending the length of the rental. In order to advance the product and provide improved capability and scalability, the application was subsequently rewritten as a pure Web application using Active Server Pages.
- In 1999, in response to customer demand and in consideration of people in the workplace having greater access to the Internet, the ARMS/400 application was ported to the Internet using Jacada, a product that converted a 5250 terminal screen into a Web-based Java application. This product was chosen to provide the greatest speed to market. The resulting product, ARMS/Web, is patent pending following recent approval from the U.S. Patent and Trademark Office of the Department of Commerce.
- Most recently, ARMS/Web was rewritten in 2000 as an Enterprise Java Beans-based Web application, running under BEA WebLogic Java Application Server.

Industry Standing

Enterprise Rent-A-Car was the first car rental company to develop an automated reservation system that has the flexibility to communicate directly with branch locations and to adapt to various workflows at different insurance companies. It is significant to note that Enterprise collaborated with insurance adjusters to develop ARMS in order to meet the needs of insurance adjusters. Although competitors have attempted to duplicate the system, no one has been able to compete with the unprecedented flexibility and technical scope of Enterprise's ARMS initiative. Since ARMS was introduced, it has been used to process nearly 10 million insurance replacement rentals for more than 150 insurance companies throughout North America, including 22 of the top 25 carriers, and is currently the most widely used system in the marketplace. In addition to insurance companies that are using various versions of ARMS, the mainframe system (ARMS/400), or the Internet, over 2,200 repair shops also are using ARMS/Automotive.

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Not only does using ARMS consistently reduce the insurance replacement rental cycle by one-half day, it significantly reduces the number of telephone calls between the insurance company, repair shop and rental car company, estimated to be 8.5 phone calls per rental, at an aggregate cost of \$1 to \$3 per call. This equates to a savings of more than \$36 million. Additionally, ARMS reduces the rental cycle by one-half day, saving approximately \$13 per transaction for an average \$26 per day car rental. This savings, multiplied by 350,000 transactions each month for 12 months, produces an annual estimated savings to the insurance industry of approximately \$54.6 million in reduced rental car costs. A similar amount of savings/benefits can be recognized as "soft cost" savings via significant process efficiencies.

$13 \times 350,000 = 4,550,000$

- ▶ Length of Rental Cycle \rightarrow Avg Rental Cycle \rightarrow 1/2 day \rightarrow \$54.6M
- ▶ Reduced 8.5 phone calls per rental
- ▶ Saving \$1-3 per call \rightarrow \$36 million

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After creating an entire industry specializing in renting replacement cars to local consumers in need of vehicles while theirs are being serviced or repaired, Enterprise Rent-A-Car has remained committed to its mission to consistently exceed customer expectations for service, quality, and value. By also creating the only proven technology to effectively manage every aspect of the lifecycle of an insurance replacement auto rental, from initiating a reservation to authorizing payments or extensions and facilitating electronic funds transfer, Enterprise's IT initiatives support the company's founding principle: Satisfied customers drive business growth.

Developed by Enterprise, the Automated Rental Management System (ARMS), uses customized electronic messaging to increase internal and external operational efficiencies while reducing severity via a three-way business integration between auto body repair shops, insurance companies and Enterprise. In addition to improving communications between auto body repair shops and insurance companies, ARMS is responsible for making the rental cycle one-half day shorter, saving approximately \$13 per transaction based on an average \$26 per day car rental. Not only does ARMS save the insurance industry money, but also makes the jobs of adjusters more efficient through its reporting capabilities. Real-time reporting, along with closed rental reporting, offers the optimum flexibility to the insurance customer. Real-time "open rental" reporting helps the insurance company manage the repair process during the rental and "closed ticket" reporting helps identify trends, including average cost per transaction, average rental length, and total gross costs.

Enterprise's commitment to developing and constantly upgrading ARMS technology not only solidifies the company's strong competitive advantage within its industry, it also reinforces the company's leadership in the local rental replacement car industry.

ARMS is responsible for a number of significant contributions to the insurance and collision repair industries, as well as within Enterprise Rent-A-Car, including:

- Enhanced Quality Of Service, Competitive Advantage and Efficiencies
- Business Growth and Expanded Market Opportunities
- Improved Operations and Internal Communications

Quality of Service, Competitive Advantage and Efficiencies

When a driver who has been in an accident calls his or her insurance company, the insurance company representative files a claim and a reservation is immediately started via ARMS. The system also enables electronic funds transfer and provides electronic reporting to the insurance company to support the claims processing and expense management.

ARMS has a proven track record of managing loss adjustment expenses and reducing severity. Based on the fact that with ARMS, the rental cycle is one-half day shorter – saving approximately \$13 per transaction for an average \$26 per day car rental, multiplied by 350,000 transactions each month for 12 months – the total annual estimated savings to the insurance industry is approximately \$54.6 million in reduced rental car costs, and between 36 million and 107 million fewer phone calls.

Since ARMS is composed of modules that can easily be customized, insurance companies can choose their method of connecting to ARMS. If the insurance company is standardized on a certain EDI format, Enterprise will customize its own data stream so that the insurance company does not need to make many changes or invest in additional IT. ARMS' flexibility also enables insurance companies to work with consumers according to their

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company's own business processes.

A unique feature of ARMS is the technical support provided by Enterprise, which invests the necessary time and resources to dispatch knowledgeable employees—armed with laptops—to insurance company claims centers for training on how to use ARMS to manage the car rental component of claims.

ARMS/Automotive is a three-way electronic data connection between repair shops, insurance companies and Enterprise that enables repair shops to automatically update and send vehicle status reports directly to insurance companies online. The primary purpose of the update is to allow the adjuster to determine the status of repairs in order to anticipate when work will be completed so the vehicle can be returned to the driver who is using a rental car. As repair shop owners know only too well, the amount of time spent on the phone with an insurance company and rental car company to complete authorizations for repairs and replacement rentals can take a significant amount of time. However, by using ARMS/Automotive for status updates, repair shops can realize cost and time savings by reducing the number of phone calls with insurance and rental car companies and providing more quality time to devote to repairing a customer's car. In addition to reducing phone calls and alleviating paperwork, the simple-to-use system improves the relationship between repair shops and insurance companies by making it faster and easier to file and track claims reports, and reduces the possibility of the consumer incurring unnecessary additional rental costs, which ultimately impacts their satisfaction with the repair process.

ARMS/Web is a free Web-based online extension of the communication system created to simplify the rental management process and better manage claims. As an Internet-based connection, insurance carriers can link directly to Enterprise to exchange data electronically via the Internet, 24 hours a day, seven days a week. In addition to being convenient for adjusters, ARMS/Web is instantaneous, specific and accurate. Whether the insurance company is dealing with an adjuster-initiated rental, customer-initiated rental, or extending a rental, the ARMS/Web system allows the adjuster to easily communicate with Enterprise via the Internet from their desktop computer, while maintaining total control over the entire rental transaction, without using the telephone.

Business Growth and Expanded Market Opportunities

Enterprise derives a significant portion of its revenue from insurance company referrals. Since 1998, the percent of insurance business coming to Enterprise through its Automated Rental Management System (ARMS) has grown from 40% to more than 75%.

Enterprise Rent-A-Car has used its Automated Rental Management System (ARMS) to process nearly 10 million rentals for more than 150 insurance companies, including 22 of the top 25 U.S. carriers, such as GEICO, State Farm, Met Life, Progressive, GMAC, Nationwide, and USAA.

In the past, insurance companies had to make multiple phone calls to repair shops to monitor the progress of each car. Now, ARMS handles this for claims adjusters by sending repair shops "packaged" electronic communications that query for updates on one or multiple cars. As a result, claims adjusters spend less time monitoring repairs and send Enterprise more business.

Since the system's introduction, more than 2,200 auto body repair shops throughout North America have begun using the Automated Rental Management Systems (ARMS) Automotive Web application developed by Enterprise Rent-A-Car.

ARMS/Automotive was developed in conjunction with standards for electronic commerce developed by the Collision Industry Electronic Commerce Association (CIECA), the trade association created to assist with developing standardized technology implementation solutions for repair shops, insurers, and rental car agencies.

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When Geico Direct began integrating its systems with ARMS more than three years ago, Enterprise made dozens of changes to its system to accommodate Geico's management reporting model. Since it began using electronic funds transfer with Enterprise last year, Geico has completely eliminated the need to print paper checks for Enterprise. Now, all the Geico data that Enterprise captures is transferred back to Geico's data warehouse.

Always committed to providing customers with exceptional service and efficient business tools, Enterprise plans to continue work with the insurance industry to develop additional improvements and enhancements to meet the ever-increasing needs of insurance companies.

Improved Operations and Internal Communications

In addition to featuring simple navigation, fast interconnectivity, and customized reporting for individual adjusters, ARMS/Web is designed to provide instant access and instant control of the entire rental claims process. Real time management of data by claim center, by adjuster, and by repair shop is a significant benefit to insurance companies. It also saves valuable time by allowing adjusters to reserve vehicles, obtain authorizations and billing extensions, prepare invoices and confirm reservations electronically. Other advantages of Enterprise's ARMS/Web include:

- **Electronic Billing** – computerized billing provides electronically audited rental invoices as soon as the rental contract is closed, as well as electronic funds transfer or bulk payment options. By receiving and remitting bills electronically, or through a bulk payment system, insurance companies can dramatically reduce heavy draft costs.
- **Auditing** – built-in auditing capabilities with computerized documentation of all correspondence, including extensions and termination dates, dramatically reduces possible billing errors by utilizing "protected fields." This prevents the rental car branch from exceeding adjuster-authorized amounts.
- **Management Reporting** – real time reporting along with closed rental reporting offers the optimum flexibility to the insurance customer. Real time "open rental" reporting helps the insurance company manage the repair process during the rental and "closed ticket" reporting helps identify trends, including average cost per transaction, average rental length, and total gross costs.
- **Systems Assistance** – a personally manned help desk available to answer questions and offer assistance, 6 a.m. to 6 p.m. Monday through Friday, Central Daylight Time.

ARMS/Automotive greatly enhances service standards and cost-effective delivery in repair shop-insurance company relations by allowing repair shop employees to automatically update and send vehicle status reports via computer or Internet, without having to spend superfluous time on the phone or additional money developing their own system. By making it faster and more convenient to file repair status updates, repair shops not only benefit from having a better relationship with the insurance companies, the improved communication can also favorably impact the shop's status with the insurance company as a "preferred provider." The online ARMS/Automotive process works as follows:

- **Sending requests to repair shops** – Each morning, Enterprise e-mails the repair shop notifying them to log on to ARMS/Automotive online to update requests from insurance companies.
- **Updating requests** – The repair shop personnel simply log on to ARMS/Automotive, update information about the vehicle, and send it to Enterprise. The information also can be electronically forwarded to the insurance company at the same time.
- **Verifying that requests have been updated** – Once the repair shop logs on to ARMS/Automotive to receive requests for vehicle status updates, the insurance company receives an electronic confirmation.
- **Follow-up** – If a repair shop has not updated its requests electronically, a person at Enterprise will call to remind them.

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